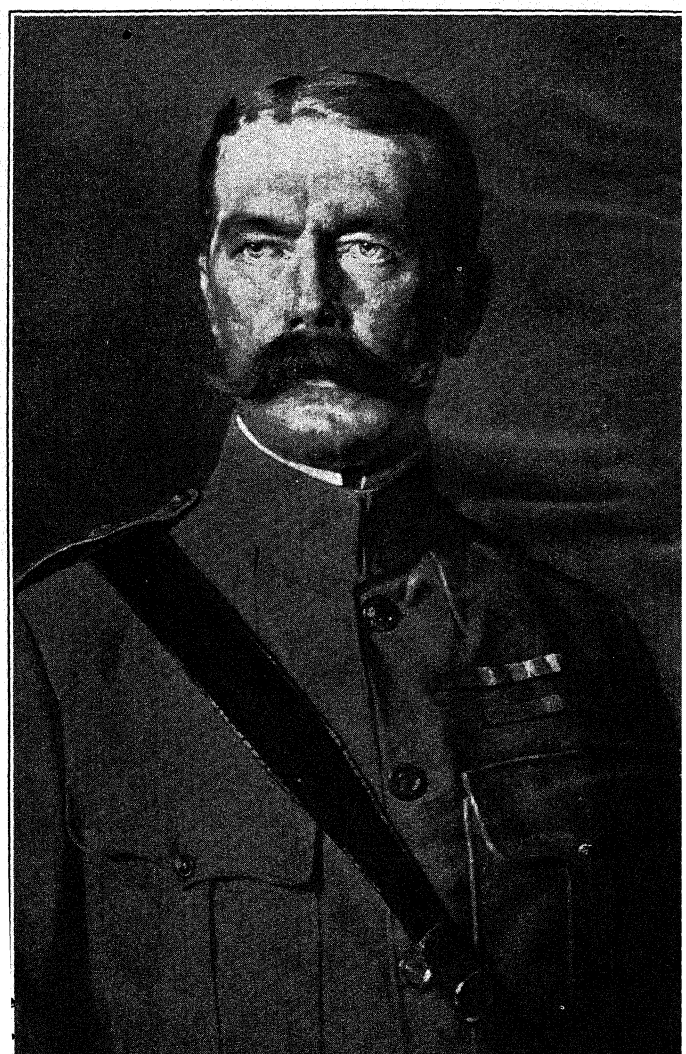


FIELD-MARSHAL EARL KITCHENER.

[*From the Painting by Angelo.*

The Times

BOOK OF THE ARMY.

4 MAR 1915

SIXTEEN ILLUSTRATIONS.

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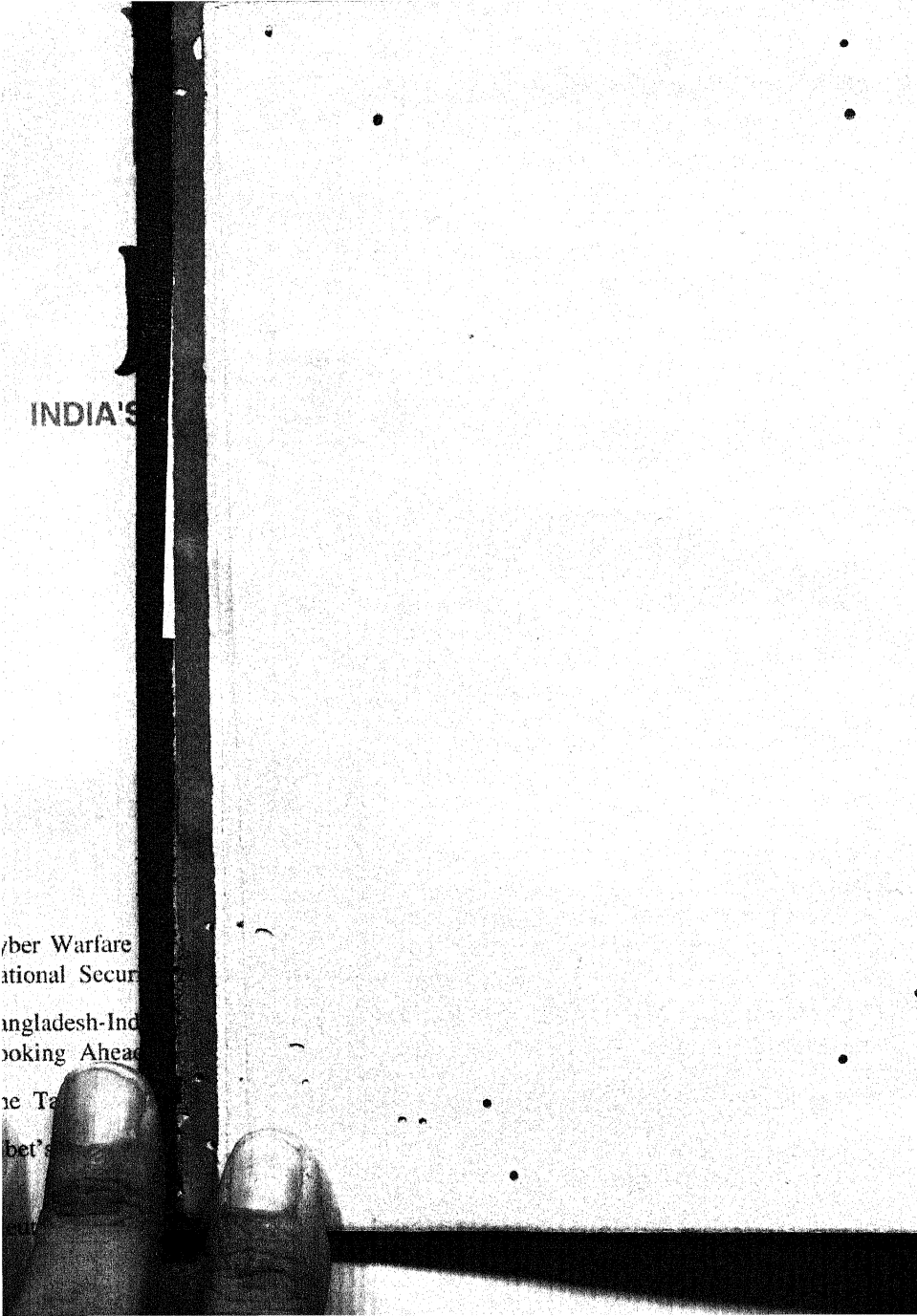
PREFACE.

A MELANCHOLY interest attaches now to the publication of this volume.

It was originally planned with the warm approval of Lord Roberts, who, deeply interested as ever in the doings of the British Army, thought that *The Times* would render a public service by producing a companion volume to the recently published *Book of the Navy*. The general scheme of the present volume was submitted to him, and he had undertaken to contribute an introductory chapter to it on his return from France.

That undertaking, alas, can no longer be fulfilled. The great soldier's many-sided work is finished. His long labours for the welfare and efficiency of the Army have come to an end, as he himself would have chosen, "in the midst of the troops he loved so well and within the sound of the guns." The *Book of the Army*, to which any contribution from his pen would have given tenfold value, can now only be dedicated to his illustrious memory. But it is proper to recall his association with its planning, if only to furnish one more proof that his help and sympathy were at once enlisted by an attempt to serve the Army, and to expound it to the British public.

November 26, 1914.


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INTRODUCTION.

THIS account of the Army is no place for dissertations —much less for controversial arguments—concerning schemes of Army reform. For the war we had to take our Army—as we took our Government, and also our enemy—"as we found it"; and it was found, as it always has been found when badly wanted, so worthy of the occasion in spirit that it very quickly became worthy also in fact. That it did not at first get the backing which it had a right to expect from the nation was the fault of the nation, not of the Army.

A crisis might arise—indeed, it might have arisen on this occasion if German diplomacy had been more adroit and German strategy less brutal—when our Government would have found itself without an adequate Army to support its policy; but, fortunately for the British Empire, this war was not a "Government war." It was a war between right and wrong. It was an occasion which, as the British Prime Minister, Mr. Asquith, said, "proved to the world that ideas which cannot be weighed and measured by any material calculus can still inspire and dominate mankind." So, of course, the nation gave to the Government in the end the Army which was needed, and gave it quickly.

The only doubt was whether we had the machinery ready and efficient to convey the strength of the Empire into the fighting line in time to decide the issue of the war. It has been said that it is of little use for a nation to rise as one man if it can also be knocked down as one man; but, on the other hand, if our military machine had failed us upon this occasion, it is scarcely possible to conceive circumstances in which it could have proved successful. We must, therefore, be specially on our guard against hasty conclusions that the war has proved the soundness of this or that theory of military organization. In time and by patient searching expert critics will perhaps discover the sidelights which the war has thrown upon opinions previously held; but what concerns us in this review of the British Army is the way in which it responded to the urgent call for national defence, and the means by which it was able to meet the tremendous needs of the Empire.

If the first reason why the Army was able to do what the Empire needed was that the quarrel was a clear issue between right and wrong, a second very potent reason was that in Britain there has never been in peace time that antagonism between the Army and the people which has characterized more "military" nations. Consequently, it has been possible to "close the ranks" in the face of serious danger, the men of the people automatically sliding into the Army as soon as they honestly felt that they were wanted.

In the following pages the process is fully described.

Here it will only be necessary to point out that the British Army, like all other British institutions, represented a curious compromise between conflicting opinions. Our real strength has always lain in the fact that we have never fallen down and worshipped any particular idol of "thoroughness." We have admitted that there is another side—usually several other sides—to every question, and we have done our best to meet divergent theories.

For this reason we have always had a very small Army. It is not generally understood that the part which the law of the realm plays in regard to military affairs is not to establish an army, nor even so much as sanction its maintenance, as to forbid its growth beyond certain limits, which are so precisely fixed that the greatest difficulty of our military organizers and administrators has always been to keep the units of the Army so exactly up to their sanctioned strength that all the money allowed by Parliament may be drawn for them. Outside a very narrow margin, of which only the Adjutant-General's experts know how to take advantage, it is not possible to have one extra man in any regiment without breaking the law, even though the next regiment may have many gaps in its ranks. And of course the nation does not pay for empty spaces. To minimize the Army's annual loss from this cause without sacrificing its efficiency is one of the ever-present problems of military work.

To the civilian reformer it might seem easy enough to recruit up to the Army's full strength and to

distribute the men and officers to the different units, so that all the latter should be always just full : but here two of the great difficulties of our position come in. In the first place our military administrators are obliged to obey the nation's wish to have a voluntary and not a conscript Army, and must therefore *tempt* recruits into the ranks by allowing them, as a rule, to join such units as they may have a liking for. Thus the system has grown up by which " the living entity in the British Army is the regiment " : because, for one reason or another, some regiments become more popular than others, and, being always able to command plenty of men from their own district, become " Crack " regiments, while other regiments may find the greatest difficulty, in peace time, in doing so from local sources. No one who has not had practical experience of Army work can realize the tenacity with which the mind of a regiment—for in this matter a regiment has almost the single mind of a corporate being—clings to the little details which differentiate it from other regiments. And from this has arisen the first great difficulty of military organizers, the initial difficulty of persuading voluntary men to go anywhere except where they want to.

It is impossible to fill the less popular regiments up for a time, by promising that recruits will be transferred as vacancies occur to the regiments of their choice, because this would involve perpetual shifting, would be fatal to discipline and unfair to the regiments to which they were first posted, and bring us up against the second great difficulty of our position,

which is that out of our small Army we have to maintain an overseas force eight times as large as that which is employed by France, and that this includes efficient and complete field forces in Egypt and India. Therefore all our regiments must be equally able to supply their foreign service battalion and must for this purpose be kept full.

This brief outline of the military problem, which is more fully explained in the following pages, enables us to understand the nature of a few of the difficulties which the reorganization of the Army under the "Cardwell system"—making it, briefly, a twelve-year Army with linked and localized battalions—was designed to meet. The other difficulties, equally urgent and even more complicated, connected with the maintenance of an adequate reserve for the standing Army, and of effective machinery for the expansion of that Army into a national force in war time, are detailed in this book. It was a formidable task which Mr. Cardwell (subsequently Lord Cardwell) undertook; and assuredly there was never a time when the nation was more vehemently assured by old regimental officers that the Army was "going to the dogs" than when his task was completed. In spite, however, of its "boy soldiers," and the almost sacrilegious audacity with which it destroyed the old regimental "numbers"—though many of these still live in the regimental spirit—his system stood until a few years before the outbreak of the war, when the Haldane reorganization was effected.

By this reorganization an effort was made to co-ordinate with our standing Army the military forces which had grown up by its side in Britain; for none of our military reforms have aimed at revolution, but rather at adaptation of existing methods for making use of the material in hand. Thus the cardinal features of the Haldane reorganization were that the Militia became a special branch of the Army Reserve, available for drafts to fill up depleted battalions, and serve garrisons and communications; the Volunteers became the Territorials, with the right to offer themselves for service overseas, of which they have plentifully availed themselves during the present war.

But what were the Militia and the Volunteers to begin with? The Militia may be said to have been the embodiment of the claim of the State to a short-term compulsory Army of its citizens. It is true that the compulsory ballot for Militiamen was not enforced, and that when a national emergency had passed—as after the Napoleonic Wars—the Militia was allowed to die away, because—not to put too fine a point upon the matter—it did not seem worth all the trouble and expense of its upkeep in peace time. So when the more distant and sudden emergencies of the Crimea and the Mutiny came upon us, we had no reserve for our regular battalions on service. There was not quite the same ineffective chaos as that from which our Armies for the Napoleonic Wars were forcibly evolved; but the position was serious enough, and when the European War of 1870 brought home to the nation the necessity

of maintaining an effective standing army, it was generally admitted that reliance upon the Militia was out of date. It was also generally felt that the Volunteer Force was inadequate for our needs. This force has been well and truly described as the embodiment of two of our main national characteristics, the individual desire to win in spite of governmental discouragement, and the habit of making our changes very gradually, almost without express intention to make them. The Volunteer Force was the expression of the townsman's patriotic desire to find an equal outlet for his ambition to serve the State which the Militia or the Yeomanry offered to the countryman. As such it survived the initial ridicule of its inception, flourished and exhibited its inevitable limitations. Like the Militia, however, it provided a fine mass of good military material, and out of this the Territorial Forces are now chiefly composed.

Thus we see that when the 1914 War broke out, the Haldane scheme was in working order for the purpose of filling our over-seas fighting line by (1) drafts from the Special Reserve, which used to be the Militia, and (2) volunteers from the Territorial Forces, which used to be the Volunteers. As, however, large new forces were quickly wanted, and no legal authority existed for ordering *Territorial* units to undertake foreign service, the War Office felt itself compelled to meet the new and vast emergency by the formation of an entirely new army. The success which ultimately attended Lord Kitchener's appeal to the country for

this purpose is already matter of history, and at the same time the value of the Special Reserve (*quondam* Militia) in filling the ranks of the Expeditionary Force, and the readiness of the Territorials (*quondam* Volunteers) to volunteer for foreign service was most gratifying to patriotic minds. The net result was that within a few months of the sudden declaration of war we had an Army abroad which, in size, as well as in efficiency and fighting spirit, proved capable of upholding the honour of the Empire against the forces brought upon it.

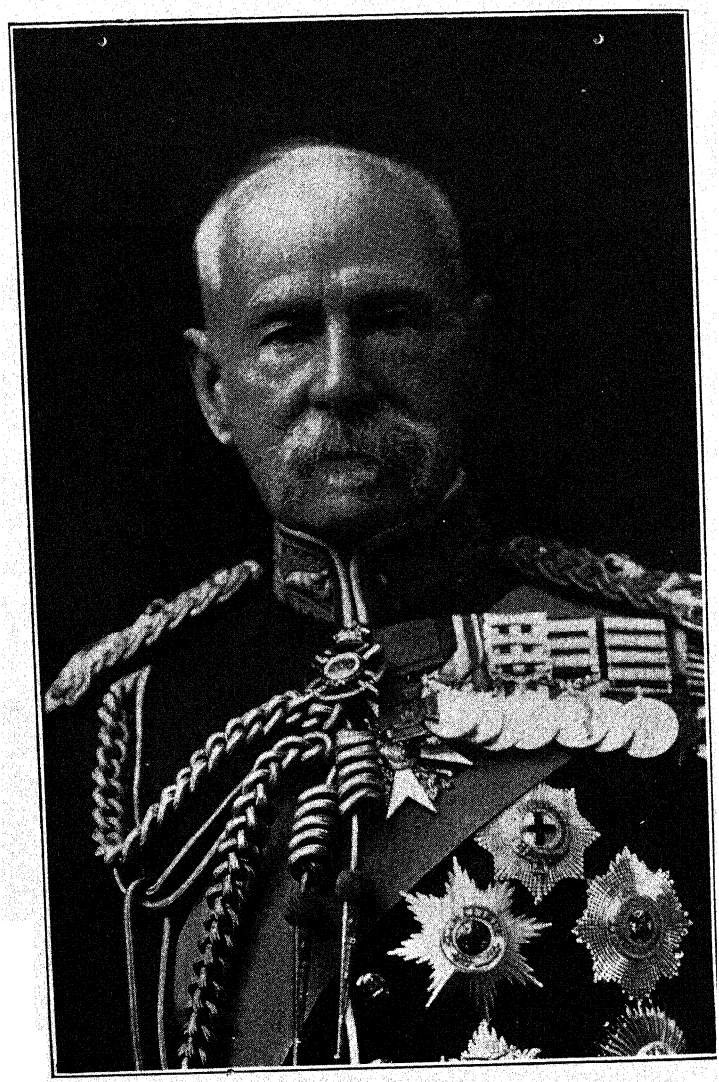
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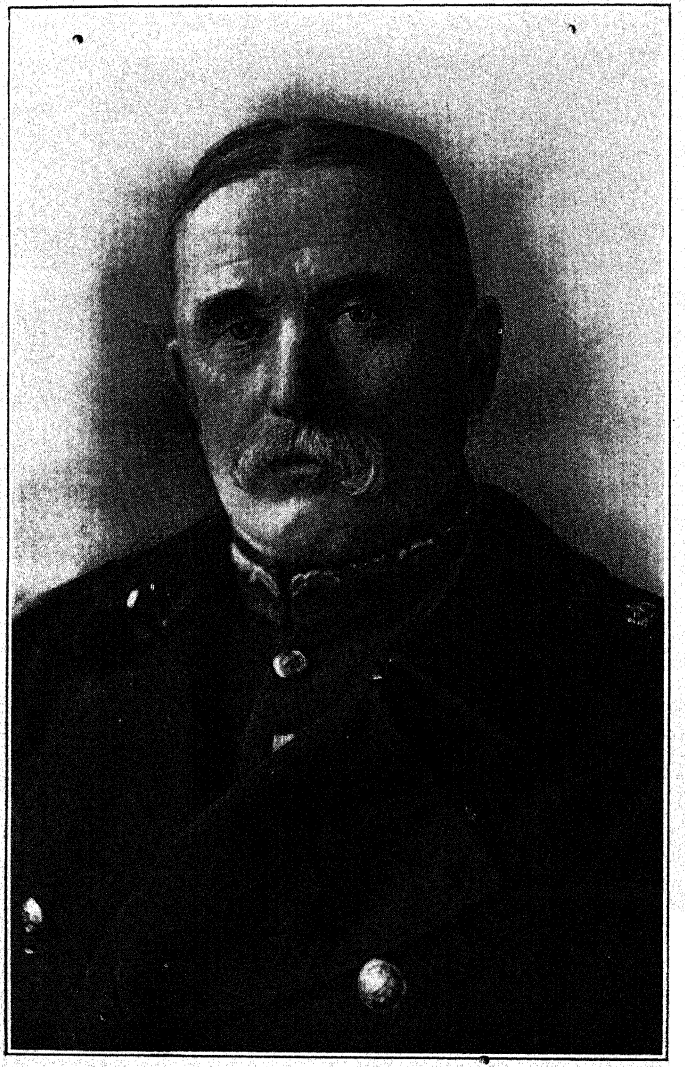


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[*Reginald Haines*



CHAPTER I.

THE EARLY ORIGIN OF THE BRITISH ARMY.

THE GENERAL LEVY—THE KING'S LIEUTENANTS—MILITARY TENURE—SOLDIERS FOR FOREIGN WARS—TRAINED BANDS—SOLDIERS BY CONTRACT—THE ARMY AFTER THE RESTORATION—THE FIRST PERMANENT REGIMENTS—THE BILL OF RIGHTS—THE FIRST MUTINY ACT—ITS MODERN FORM.

THE British Army as a standing force dates from the Restoration of Charles II. in 1660. Before that date the organization of the Forces was much less systematic, although based on certain well-known principles. Of these one only need be dealt with, as it is the sole survivor.* It is the undoubted prerogative of the sovereign to call on all males capable of bearing arms, between the ages of 15 and 60, to come out when summoned for the defence of the realm. This general levy was—and is—available for a double purpose. As a civil force it was known

* The various feudal rights by which the sovereigns relied on their military dependents to whom they had granted lands on the condition of military service for the supply of fighting men or of scutage by which the holders of lands equipped and maintained knights in lieu of personal service were finally abolished by Act 12 Charles II., c. 24.

as the *posse comitatus*, which the sheriff could call on to arrest criminals and suppress riots.* As a military force it was called out, under the sheriff or some other officer of the Crown, to defend the realm in civil war or against foreign foes. The force was liable to serve only in the kingdom, and, except against an invader, only in its own county. Sometimes it was summoned in all the counties; at other times in particular counties only. The general levy was repeatedly called out by the Norman and Angevin kings (1066 to 1216) for the suppression of internal rebellion, or for border warfare against the Welsh and Scots. It was, however, plainly unsuitable for warfare beyond the seas, as service in it could be enforced for only 40 days.

In the time of Edward VI., "lieutenants" were appointed in the counties to array, or lead, or both; and after the reign of Mary such "lieutenants," now commonly known as Lords Lieutenant, were usually appointed for these purposes.

Even before the Norman Conquest the general levy took long to raise, and was difficult to keep together, especially when operating outside the boundary of its own petty kingdom. Hence the old English kings relied more on their military dependents, to whom they had granted land on condition of military service. These were known by the name of Thegns. The Norman Conquest altered all this by substituting a wholly feudalized military aristocracy for the semi-feudal

* This power is exemplified when a policeman calls on a bystander to assist in the arrest of a wrong-doer.

thegnhood, the whole of England being divided by William I. into military fiefs held from the Crown. Some were small, others large, and the latter, the direct holders from the Sovereign, were subdivided into smaller fiefs or knights-fees dependent upon themselves. The holder of a military fief might therefore be either a tenant-in-chief holding directly from the Crown, or a sub-tenant holding under some great earl or baron. All alike were bound to attend the king at their own expense on horseback and in armour with their retainers, who might be either mounted or on foot. Though the earlier Monarchs successfully demanded service abroad as well as service at home, the former obligation was always a doubtful exercise of the prerogative, and as time passed the feudal tenants displayed increasing reluctance to serve out of the kingdom, and at length refused to do so.

Personal service formed the basis of both the feudal and the general levy, but the obligation to serve in the latter rested on every man as a citizen, or, as it was termed, "on every man within the allegiance of the King" But from the time of Henry II. service by deputy, or payment in lieu of personal service under feudal obligations, was allowed. In the case of the general levy the practice arose of calling out only a certain quota from each county to serve in person, while those not so called on were required to supply all arms and victuals, and defray the expenses of, those who served in person. Closely connected with the general levy was the Crown's prerogative of Purveyance, which

enabled the Crown to enforce the supply of carriages carpenters, smiths, and other artificers, as well as of victuals, for military purposes.

Both the feudal and the general levy, when called out for war, were summoned by writs from the Crown, to which the name of Commissions of Array was given in the reign of Edward I. While perfectly legal for raising a force for service within the realm, they were illegal when used to raise troops for foreign service. For they threw on the counties the burden of finding soldiers for foreign wars, and paying their expenses, thus taxing them without consent of Parliament. By a series of Acts, therefore, beginning in 1327, it was provided that men should not be required to serve out of their counties except in the case of invasion; that men-at-arms, hoblers,* and archers chosen to serve out of England should be paid by the Crown after leaving their counties; and that no man should be constrained to find men-at-arms, hoblers, or archers, unless bound by feudal service, or under the authority of Parliament.

During the Wars of the Roses troops were raised in the most irregular manner, and the practice of impressing men was introduced and became so common, that it was assumed to be the right of the Crown. Under the Tudors these irregularities were continued, and certain Acts passed which enforced the provision of equipment, and made archery compulsory. Penalties were also enforced for not attending musters of Commissions of Array authorized to levy the best men for the

* Hoblers were lightly equipped horsemen who used the bow.

wars, and these assumed that the right to impress was one of the prerogatives of the Crown. Most of these acts were repealed under James I., but the liability to serve in the general levy continued, and was enforced by means of Commissions of Array which gradually developed into a rather different form under the title of Commissions of Musters. These commissions directed the commissioners to register and muster all persons liable to provide horses, arms, or soldiers, and to select a convenient number of such persons to serve in person at the charge of their counties for the service and defence of the Crown. These were to be sorted into bands and trained and exercised at the charge of the different parishes in the county.

This system of training appears to have assumed at the end of the sixteenth and beginning of the seventeenth century a quasi-permanent form under lieutenants of counties or other commissioners, and the bands trained under them became known as Trained or Train Bands, and were mustered annually. At the same time there existed, side by side with the trained bands and in more or less connexion with them, voluntary bodies, such as the Honourable Artillery Company in London and others elsewhere, which, doubtless, owed their origin to the fact of its being thought honourable to possess military acquirements.

Under Charles I. commissions of musters were used for the purpose of exacting contributions in money and arms from the counties. These exactions were complained of in Parliament, and, together with the trial of persons

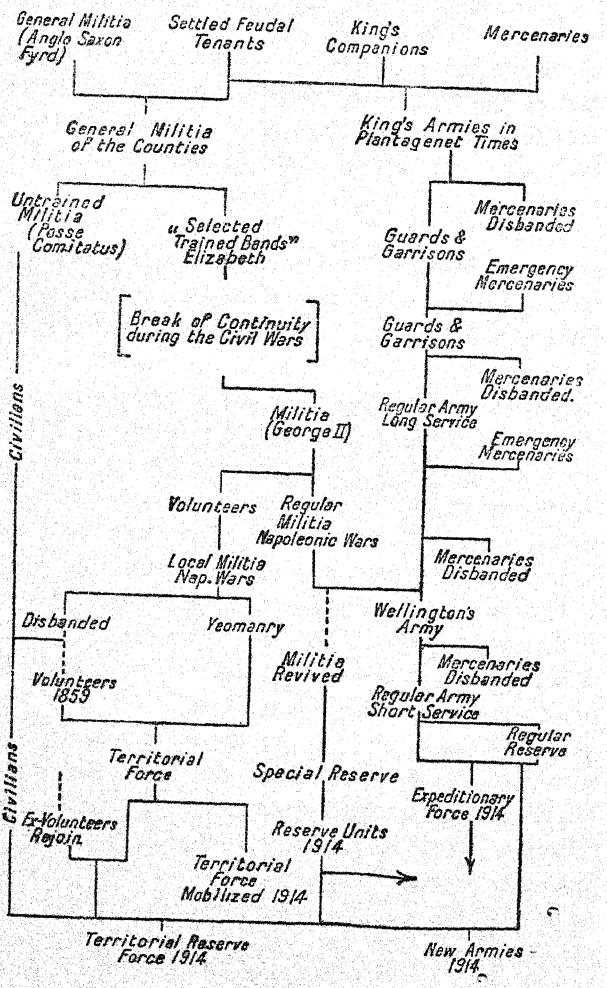
by martial law in time of peace and the practice of billeting, were, in 1628, declared to be illegal by the Petition of Right. In the Long Parliament in 1640 the King, though at first claiming the power of impressment as the ancient and undoubted prerogative of the Crown, assented to an Act declaring it illegal except in case of necessity or invasion, or in the case of those bound by the tenure of their lands.

The Parliaments of Charles I., while protesting against the exactions enforced by the lieutenants of counties and the illegality of impressment, did not complain of the mustering of the trained bands; and the value of the trained bands or militia, as they now began to be called, and the necessity for exercising them and providing them with arms and ammunition, were recognized on many occasions by Parliament. But objection was taken to the command of the militia being under the control of the Crown exercised through the lieutenants of counties, and this question was one of the principal matters in dispute at the time of the rupture between Charles I. and his Parliament.

Certain other means than those described were also made use of to raise troops. Thus by two statutes passed in the reign of Henry VII., holders of offices, pensions, lordships, or lands from the Crown were made liable to serve at home or abroad on pain of forfeiture. Sometimes criminals were pardoned or debtors released on condition of serving as soldiers, and this custom was maintained even in the earlier years of the last century. Lastly, as early as 1066, mercenaries formed part of the

forces of the Crown. The distinction, however, between these troops and those raised under the feudal or general levy was often not a wide one, as men raised under the latter were induced to serve beyond the seas, or for more than 40 days (their legal period of service) by payment. The mercenaries were usually raised by contract between the King and some person of position, who was able by his influence or wealth to obtain soldiers. The men so obtained were at first chiefly foreigners, and as their employment in England was not only strongly objected to, but was rendered unnecessary by the liability of the inhabitants of the realm to service at home, they were almost entirely employed on foreign service. After the raising of men compulsorily under Commissions of Array was restrained by Parliament, the practice of raising troops by contract became more common, and in the early part of the reign of Henry V., and subsequently, the larger part of the forces of the Crown were thus obtained. At first the men were enlisted to serve the officer who raised them, but after 1491, if not before, they were enlisted to serve the King. The method employed was by contract with an individual, sometimes for a sum of money, sometimes on condition of the contractor having the appointment of the officers of the force raised. Enlistment was strictly for service in the particular regiment with which the recruiting officer was connected.

After the Restoration in 1660, considerable changes took place in the military system of the country. Knight service with the feudal levy and its incidents, including



GENEALOGY OF THE BRITISH ARMY.

escuage, were finally abolished and the organization of the general levy, of which the trained bands formed part in the form of the militia, was completed under the authority of Parliament. At the same time the foundation of the present standing army was laid. Before this time there had been no such force; armies for particular wars had, indeed, been raised and paid for by Parliament, but were disbanded after their conclusion. A few troops were, it is true, maintained in certain garrisons, and small corps of sergeants-at-arms, yeomen of the guard, and gentlemen pensioners existed, though these were intended rather as personal attendants on the King than for operations in the field. The only other corps of a permanent character were the trained bands, the Honourable Artillery Company of London, and similar associations, which were, in fact, either part of the general levy or voluntary associations, and an actual standing army was unknown.

The troops raised by the Parliament during the Civil War were disbanded under Acts of Parliament passed on the Restoration in 1660, but under a section in those Acts, Charles II. was enabled not only to keep up the garrisons in certain fortified places, but also to maintain two regiments of horse and six of foot as guards for the Royal Person, which thus formed the beginning of the modern British Army.* These regiments were main-

*These regiments at first were five in number, comprising the Life Guards (two troops only), the Horse Guards (the Blues, so called from the colour of their uniform), the First Foot Guards (the Grenadiers), the Second Foot Guards (the Coldstreams), the Regiment of Douglas (the Royal Scots). To these were added the Tangier Regiment (the 2nd Queen's) in 1661, the Holland Regiment (the Buffs) in 1665, and the Second Tangier Regiment (the 4th King's) in 1680, in which year the Tangier Horse (the Royal Dragoons) was also raised.

tained during his reign and that of his successor, James II., and their numbers were gradually increased, not merely on the occurrence or in anticipation of foreign war, but on other occasions. Their maintenance, however, formed the subject of frequent remonstrances in Parliament, and the increase of their numbers by James II. was one of the causes which led to the Revolution of 1688. By the Declaration of Rights, made by Parliament in 1688, which subsequently took the form of the Bill of Rights passed in 1689, and which was an affirmation and emphasizing of the old law, it was established that " the raising or keeping a standing army within the kingdome in time of peace unlesse it be with the consent of Parlyament is against law."* In the same year was passed the first Mutiny Act by which Military Law (as distinguished from Martial) was brought into proper legal form, it having been found impossible to maintain discipline in the Army unless soldiers were subjected to special provisions required for the prevention of mutiny and desertion.† Since then the nation has acquiesced in the expense of a standing army, which has been maintained ever since. Until 1878 the consent of Parliament was given in the preamble of the Mutiny Act, which was passed annually, and which recited the number of troops to be maintained

*These words were subsequently employed as the preamble of the Mutiny Acts, and now form the preamble of the Army (Annual) Act, the only variation being "the United Kingdom of Great Britain and Ireland," in place of one word "Kingdome." The Bill of Rights also prevents the introduction of foreign troops into the kingdom without the consent of Parliament.

†There is, in fact, no such thing as Martial Law. Military Law is defined by Statute and applies only to those expressly subjected to it. "Martial Law is not a written law: it arises on a necessity, to be judged of by the executive, and ceases the instant it can possibly be allowed to cease."

during the year, and thus formed the statutory authority for the maintenance, government and payment of an army.* This system was cumbersome. It was ridiculous to tack on to the Act which regulated the government of the Army the numbers permitted for the year. In 1878, therefore, the Army Act was brought in and passed, and it was arranged that its former preamble should form part of the Annual Act which brings the Army Act into force for the ensuing 12 months. This still maintains the power of Parliament, as in the discussion on the Annual Act it is in order to discuss any alteration in the Army Act, but it limits the debate to such points and prevents a rambling discussion at large over the whole Act, which modern experience has shown to be a wise provision.

*The first Act in which the numbers were mentioned was 12 Anne., c. 13, which regulated the number and discipline of the forces continued on foot after the conclusion of the Peace of Utrecht.

CHAPTER II.

THE FIRST STANDING ARMY.

THE ARMY OF CHARLES II.—ESSENTIALLY VOLUNTARY—VARIOUS RECRUITING METHODS—THE CONTRACT WITH THE COLONEL—THE CROWN REPLACES THE COLONEL—VARYING TERMS OF ENLISTMENT—THE LATEST SYSTEM.

THE Army of Charles II., and of all succeeding Sovereigns, has been a voluntary one, although at different times Acts have been passed authorizing the impressment of certain persons of blemished character or unsettled mode of life. But these have always formed only a small proportion of the whole force for which recruits were obtained by means of money payments, or "bounties," which were given to them on their enlistment, and which, in time of war, have often risen to considerable amounts. In days of stress the old system of contract has occasionally been reverted to, and troops have been raised by an agreement between the Crown and some person who undertook to raise a corps on condition of receiving the nomination of all or some of the officers. The rank of Ensign or Cornet was also given to gentlemen who could bring into the Army 100 men. This system was resorted to as late as the Crimean War and Indian Mutiny.

In time of peace the mode of raising troops down to 1783 was by a species of contract between the Crown and the colonel of the regiment, who received from the Crown an order enabling him to raise recruits "by beat of drum," *i.e.*, by recruiting parties, and was held responsible for enlisting sufficient recruits to raise and keep up the regiment to its proper numbers. The sums for recruiting expenses and for pay and clothing were issued to him in gross; and, subject to certain limitations as to the amount of bounties, he and his officers made their own bargains with the recruits. The sums for recruiting expenses in each regiment were carried to a fund called the stock purse, the accounts of which were made up annually, and the surplus (if any) was handed to the captains of the companies. The commission to a major or colonel appointed him also to be a captain of the regiment, so that he had a company of which he shared the profits, while it was commanded by a captain-lieutenant. The balances, however, were seldom large; and when vacancies became numerous, from losses on service or other causes, the cost of recruiting exceeded the allowance, and the officers were liable to heavy expenses, from which they were sometimes relieved by extra allowances. Under the above system the officers had a pecuniary interest in keeping down the expenses of recruiting, both by obtaining men cheaply and by prolonging the service of men enlisted, to avoid the necessity of obtaining recruits in their places. Fraudulent re-enlistment defrauded the captain, and as early as 1689 this offence was by the

Mutiny Act made punishable with death. At the same time the system held out great temptation to do wrong, by mustering and drawing pay for non-effective men as effective, and this, though restrained by provisions of the Mutiny Act, continued to prevail until the pecuniary interest of officers in the pay of the men was abolished.

This condition of things was altered in 1783, and the present plan adopted by which the Crown raises the men, pays, equips, and clothes them.

The terms of enlistment have varied from time to time, but the general rule was for life until 1847, though when the exigencies of war required additional troops, recourse was had to special terms of enlistment. Thus men were in 1679 enlisted for three years for the Tangier Regiment, and in the time of Queen Anne the period was usually three years. In 1745, to meet the necessities of the Jacobite rebellion men were enlisted for two years, and in 1759 and 1775 the term was for three years or till the end of the war.

At the beginning of Charles II.'s reign a recruit had to produce "good testimonies of courage and fidelity," but towards the end of the reign the conditions of enlistment rendered it necessary to hang deserters by way of example! At first the place of a trooper in the Tangier Horse, Dumbarton's Regiment, or Kirke's Lambs afforded sufficient inducement to procure a good class of recruit. The pay was relatively better, and the discipline was lax; but after the accession of William III. the conditions of a soldier's life were made more stringent, and voluntary enlistment began

to fail. In Scotland in 1696 Parliament granted the King a levy of 1,000 men annually, who were to be taken first of all from "idle, loose, and vagabond persons," and secondly from others not employed in service. Men with wives and children were exempted in both cases. Impressment, which had been abolished in England for the Army, was still permitted for the Navy, and was for some time practically made use of for regiments serving abroad. The doings of one man called "Toolye" in 1694 attracted the express attention of the House of Commons, owing to his having impressed the servant of a member, and the whole of the men found in his house were ordered to be discharged. In the next Mutiny Act, therefore, it was provided that no man would be held to be enlisted until he had declared his free consent before a justice of the peace. This holds good at the present day.

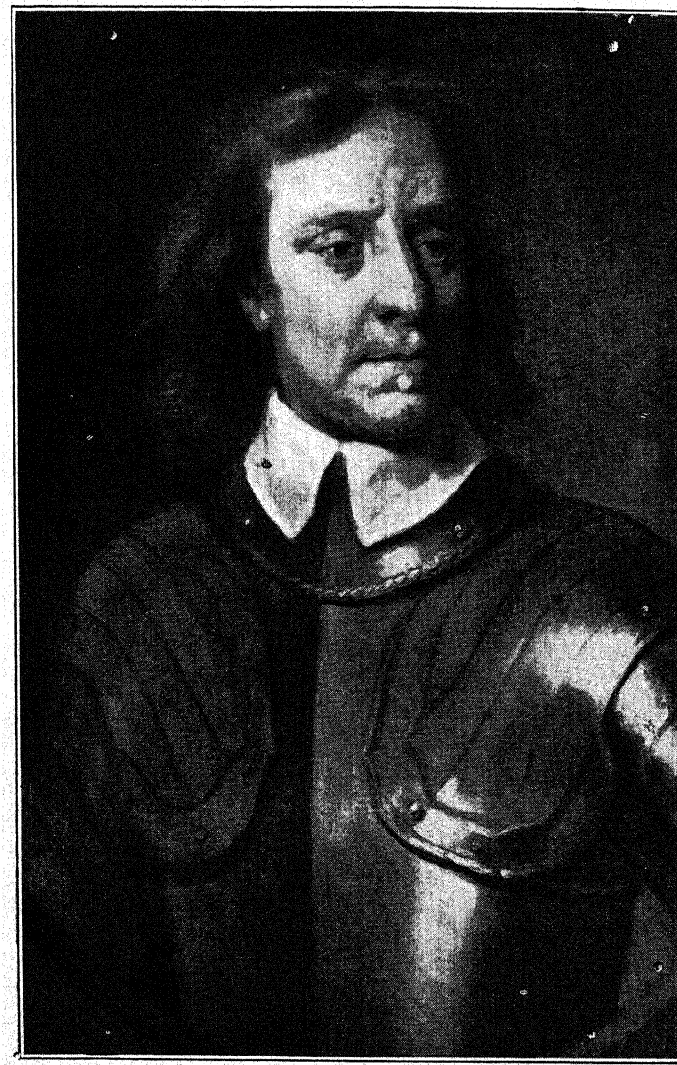
In 1806 the principle of short service enlistments was definitely introduced. The period was to be for seven years in the infantry, 10 years in the cavalry, and 12 years in the artillery, with power to renew the engagement, and with the right to a pension. It was acted on to some extent until 1829, when it again was abolished in favour of life engagement. In 1847 the Army Service Act was passed, which, as amended in 1849, limited first engagements to 10 years for the infantry and 12 for the cavalry or artillery, but allowed re-engagements for such further periods as would make up a total service of 21 or 24 years, as the case might be. A soldier might also,

with the approval of the military authorities, continue his service after the 21 or 24 years, until he gave three months' notice of his wish to be discharged. During the Crimean War (1855) and Indian Mutiny (1858) power was given temporarily to the Crown to enlist and re-engage for shorter periods, and also to re-engage men in the cavalry and artillery for a period making up 24 years' service.

The next important step was the Army Enlistment Act of 1870, under which recruiting for short service was first definitely authorized. This was the first instalment of the many great reforms introduced by Mr. Secretary Cardwell. It is not too much to say that to the system he introduced we owe the relatively large force which we are now able to put into the field. Alterations have been made in some of his original proposals, and some of them have never been properly carried out; but the plan which he authorized of passing men through the Army to the Reserve is absolutely necessary if we are to maintain an army at all adequate to our needs, and whatever system may be adopted for raising the men, it is the only one which can possibly combine moderate peace numbers with sufficient strength for war.*

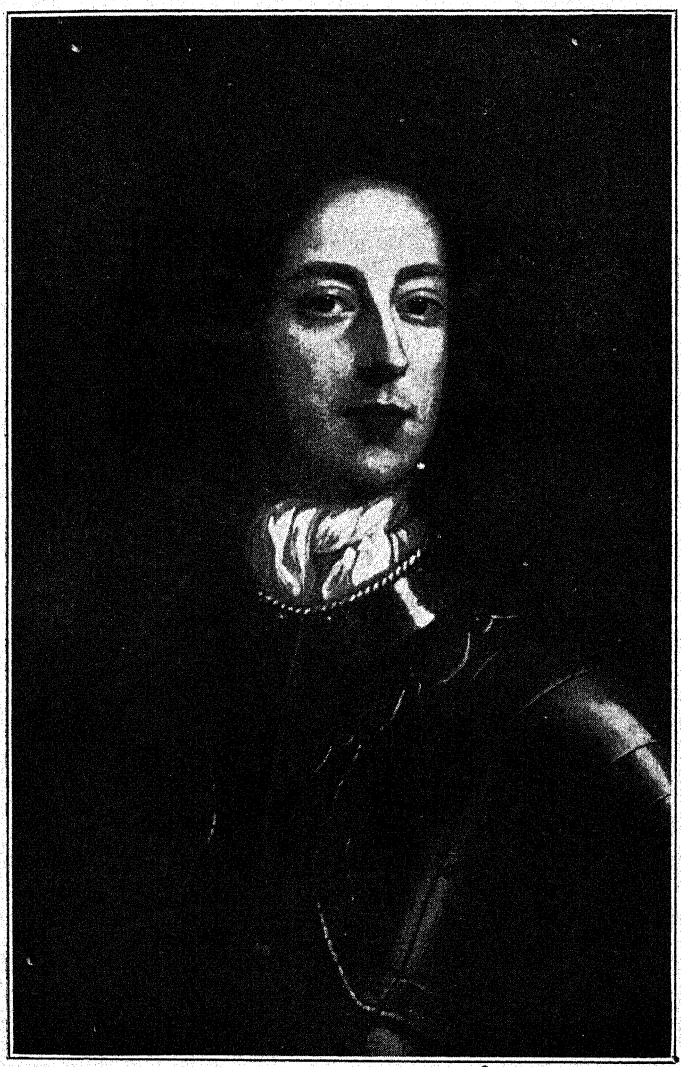
General Order 34 of 1874 defined the proportions in which recruits for long and short service respectively might be enlisted for the several arms of the service. In 1874 and 1875 recruits for the Royal Artillery and

*An Army Reserve had been formed in 1867 from men who were still serving or had served in the Army, and with its own officers. It was always small in numbers, and was allowed gradually to die out.



iv.] OLIVER CROMWELL.

[*Photographed by Messrs. Eyre & Spottiswoode from a Painting. Artist unknown.*



v.] THE DUKE OF MARLBOROUGH.

[*Photographed by Messrs. Carter Bros. from a Painting.*



Foot Guards were permitted to be enlisted for long and short service indiscriminately, and in the former year short service in the cavalry, artillery, and engineers was made eight years with the colours and four years with the reserve; for the Infantry and Army Service Corps six with the colours and six years with the reserve. In 1878 a further step in the new direction was taken by making all enlistments for the Infantry of the Line for short service, except men specially enlisted and boys under 16 years of age. In 1881, short service was seven years with the colours and five with the reserve. The order introducing this division of the enlistment period also defined the conditions under which men were to be enlisted for long service.

In 1883, short service in the Foot Guards was changed to three years with the colours and nine years with the reserve. In 1887, short service with the Royal Engineers was ordered to be seven years with the colours and five with the reserve, or three years with the colours and nine in the reserve, and in the Army Service Corps and Medical Staff Corps three years with the colours and nine years in the reserve. In 1890, short service in the Foot Guards consisted of seven years with the colours and five in the reserve, or three years with the colours and nine in the reserve, at the man's option, and in 1891 the same rule was applied to the Medical Staff Corps.

In 1898 a considerable extension of the short service principle was made by offering to a limited number in the infantry the power to engage for three years with the colours and nine in the reserve. In 1902 it was

determined to enlist practically the whole of the men for the Cavalry of the Line, Royal Artillery, Royal Engineers, Foot Guards, Infantry of the Line, Army Service Corps, Royal Army Medical Corps, and Army Ordnance Corps for a period of three years with the colours and nine in the reserve. From 1903 drivers for the Army Service Corps were enlisted for two years with the colours and ten in the reserve.

The short colour service introduced in 1902 was found in practice to present many difficulties. It had been hoped that sufficient men would extend their service to enable the Indian and Colonial reliefs to be carried out. But the desired end was not reached, nor could it have been obtained unless such a large proportion had agreed to extend as practically to render nugatory the advantages to be obtained from so short a colour service. In October, 1904, therefore, the terms were changed and became for short service in the Infantry of the Line nine years with the colours and three in the reserve. In December of the same year short service of the Line became eight years with the colours and four in the reserve, which was changed in 1905 to seven years with the colours and five in the reserve; and early in the same year short service in the Royal Garrison Artillery became nine years with the colours and three in the reserve, except for Artificers, for whom it remained three years with the colours and nine in the reserve. Short service for drivers of the Royal Engineers and Army Service Corps was fixed at two years with the colours and ten in the reserve.

The terms of service in the various arms are now as follows :—The men enlist for twelve years' service or such period as may be fixed by the Sovereign, and the service may be divided between the Army and the Reserve in such proportions as the Army Council may decide.

Cavalry*	7 years, with 5 years in the Reserve.						
Horse and Field Artillery, Royal Engineers .., Army Ordnance Corps	6	,,	,,	6	,,	,,	,,
Driver R. Engineers and Army Service Corps	2	,,	,,	10	,,	,,	,,
Foot Guards	3	,,	,,	9	,,	,,	,,
Infantry	7	,,	,,	5	,,	,,	,,
Army Service Corps ..	3	,,	,,	9	,,	,,	,,
Mechanical Transport ..	7	,,	,,	5	,,	,,	,,
Royal Army Medical Corps	3	,,	,,	9	,,	,,	,,

The considerations which govern the division of the enlisted man's service are the provision of as large a reserve as possible consistent with a peace strength limited by expense; while at the same time it must be sufficient to furnish the reliefs required by the garrisons of India and the Colonies, &c. These two requirements are in opposition, and hence it is necessary to vary the terms of enlistment in the various arms. Thus the Royal Engineer and Army Service Corps drivers, of which a large number are required in war time, are sent rapidly through the ranks so as to form a large reserve. On the other hand, the Garrison Artillery, so far as the greater portion of it is concerned, is practically always on a war footing, and hence the longer part of the man's service must be in the Army, the smaller in the reserve.

*In the Household Cavalry eight and four years.

CHAPTER III.

THE BRITISH FIGHTING FORCES.

How our Army Differs from Foreign Armies—Want of a Permanent Basis—Increased or Decreased for Party Purposes—Auxiliary Organizations—The Militia—The Volunteers—The Yeomanry—Minor Organizations—The Territorial Army—Officers Training Corps—Numbers Who Join the Forces Annually.

THE British Army differs from that of the other great European Powers inasmuch as it has no permanent basis such as they have. Austria, France, Germany, Italy, and Russia have definite laws which impose military service on the people. In England a certain number of men are sanctioned annually, but the failure to pass the annual Army Act would, from a purely legal point, dissolve the British Army. It is plain that the want of a permanent system such as other nations have leads to a very different manner of regarding the Army. In time of peace it is apt to be regarded from the point of view of the moment, without reference to the requirements of the nation when at war, and reducing it forms a ready means of cutting down the national expenditure. The average Englishman quite understands the need for

a Navy, but scarcely appreciates the necessity for an Army. The student of history knows that this failure to grasp the true requirements of the Empire has, in the long run, proved a very expensive one. A large proportion of the National Debt is due to it, because maintaining inadequate forces in peace time, and cutting down the military expenditure to the lowest possible point, has led in time of war to a lavish expenditure of money, and the infliction of a permanent charge on the nation, which a more rational system would have largely avoided. It may fairly be said that we have never entered on a war with our military forces in a state of proper preparation, or sufficient in numbers.

Experience has shown, too, that the numbers maintained in the Regular Army have never sufficed for the requirements of the country, and in times of stress it has always been necessary to supplement it by other organizations. We reached the limit of voluntary recruiting about 1807. We had to diminish the height, which sank from 5ft. 7in. in 1802 to 5ft. 3in. or even 5ft. for lads of seventeen, and admit men up to forty. Each recruit cost 38 guineas, and sometimes more, including levy money and bounty to the man, but never were we able to complete the establishment, which in 1813 was still 25,000 short of the number required, viz., 255,000.

We have seen that at the time of the Restoration the general levy of which the trained bands formed part was organized in the form known as Militia. This term seems to have originated about the time of Charles I.,

and has since been exclusively employed. It is to this force that our rulers have looked for assistance in any emergency—as in 1690 on the threat of a French invasion, and again during the rebellions in 1715 and 1745. In 1757, under the elder Pitt, a complete reorganization of the force took place. The old obligation to which owners of property were liable to provide so many men, horses, &c., was given up, and the duty was imposed on the counties and parishes, which had to furnish a fixed quota. The period of service was fixed at three years, between the ages of 18 and 50 years, and certain exemptions and substitutes were allowed. Every fourth year one-third of the officers were to be discharged to make room for others. The Militia could be embodied in case of invasion or imminent danger thereof. It was thus intended to supplement the Regular Army.

Various alterations were made in the laws which governed it, but the real importance of the force was only seen after the rupture of the Peace of Amiens by Napoleon, when he threatened to invade this country. Volunteers were raised by thousands, and as being an efficient volunteer exempted a man from the ballot for the Militia they formed the refuge of all who did not wish to fight for their country. The result was to give a large force of ill-trained and often insubordinate men who prevented the Militia from being raised to a proper standard. At the same time it may be remarked it was a punishable offence for a Militiaman to enlist into the Regular Army! The Militia, known

then as the General Militia, was embodied in 1803, and remained so till after the conclusion of peace. Gradually it dawned on our administrators that the best use to make of it was not merely to keep it as a separate army for the defence of the kingdom, but also to look to it as a source for filling the deficiencies in the Army. Lord Castlereagh stated in the House of Commons on the 11th November, 1813, that during the preceding eight years the Militia had furnished over 100,000 men to the Army, or two-fifths of the total number raised for it. He added: "Parliament ought always, therefore, to bear in recollection that . . . without the Militia we could not have shown that face which we have done in the Peninsula." There is no doubt that the efficiency of the British infantry in Spain was largely due to the fact that its reinforcements consisted almost entirely of drafts of trained men from the Militia and from the second battalions raised in the United Kingdom to feed the battalions fighting in the field. Sometimes it happened that the second battalion was on service and the first in the United Kingdom, and sometimes both were in the field. But as much as possible the principle was adhered to, one at front, one at home.

When the General Militia became a mere appanage of the Regular Army, and the latter was almost entirely abroad, it became necessary to raise a force for home defence. This was done by the Local Militia raised by Lord Castlereagh in 1808.

The force was to be raised by ballot from amongst men of 18 to 30 years of age, the quota for each county

being fixed by Parliament. Service was for four years; substitutes were not allowed. A small bounty was given to those who entered voluntarily; but in the event of a deficiency of volunteers the ballot was to be had recourse to. By 1812 it numbered over 214,000 out of an establishment of 240,000. In the wars against Napoleon the Militia proved itself of the greatest utility; but unfortunately it was allowed to die down after peace was proclaimed, and, above all, the mistake was made of allowing the ballot to be suspended. During the Crimean War it was once more embodied, but the number reached only 68,000. During the Mutiny it was again called out, and lastly, during the South African War, the whole was embodied at various times. When Lord Haldane introduced the present Army organization the force in its old form disappeared and was brought into being again in the form of the Special Reserve, which is much more intimately allied with the regular infantry regiments, of which it may indeed be said to form an integral part.

After the termination of the Great War the Army fell into somnolent conditions. Neither the nation nor the people recognized the necessity for it. The belief was almost universal that Europe had entered on a period of peace which was never likely to be seriously interrupted. It might have been thought that the severe lesson we had learned from 1803 to 1815 would have made some impression on the nation. This was far from being the case. Never was the Army in such a perilously weak state as when the Duke of Wellington, in 1847, in a

letter addressed to Sir John Burgoyne, drew attention to the grave danger in which the nation was placed. Very little attention however was paid to the great soldier's warning. The Manchester School was in the ascendant; the nations of the earth were all to adopt free trade and become a band of brothers. They did not, nor have they done so; and the Great Exhibition of 1851, which was regarded by the peace-at-any-price party as the coping-stone of their policy, proved on the contrary to mark the end of peace and the beginning of an era of war. The Crimea found us quite unprepared; our Army consisted of a mere congeries of isolated battalions with no means of repairing losses but by depleting others, Volunteers for the line were obtained from the Militia, quite regardless of the fact that it was illegal to do so. Foreign legions were raised, of whom, and the methods of raising them, the less said the better. The Crimean War ended, the Army was again reduced (from 275,000 to 157,000) by the simple process of turning out the men on the streets. In 1858-9 it was again increased to deal with the Indian Mutiny, to be again diminished after that was over. And so we have gone on up to the present day. Lord Wolseley thought extra battalions were needed for the line. Lord Haldane disbanded them, and now we find ourselves at war, requiring a force of over two millions, while a few months ago the very men who are demanding these numbers were the most prominent in denouncing what they called militarism and laughing at Lord Roberts for advocating a nation in arms.

From time to time the country went through spasms of fear as some threatening political situation turned up. It was this feeling which gave rise to volunteers of 1801, who numbered at one time about 400,000, many doubtless inspired by patriotism, but more by the desire to avoid more strenuous forms of service. They gradually diminished as the Government applied more stringent rules to them, and after 1815 died out almost entirely. In 1859 a threat of invasion from the French, due to the shelter afforded to some of the members of the Orsini conspiracy against the life of Napoleon III., intensified by the French successes against the Austrians in Italy and the annexation of Savoy and Nice, gave a fresh impulse to the nation. The counties were authorized to raise volunteer regiments, both of horse and foot, and the numbers soon reached 180,000. They were organized according to the individual taste of the persons who raised them, without the slightest regard to military requirements. Thus in some regions of our coast fortifications nothing but infantry was formed, while the bulk of the artillery required to man our defensive work was established in a broad band from Lancashire across the centre of England. At first a mere congeries of battalions and batteries, in after years they were brought somewhat into order, formed into brigades, and given a more or less efficient equipment for field purposes. But it was not till Lord Haldane took the matter in hand, and introduced the Territorial Force, that a really adequate organization of the second line troops of the country was brought into existence.

In its final form, about the time of the South African War, the Volunteer Force comprised a large number of infantry battalions, brigaded once a year for their camp training, but otherwise placed under the commands of the regimental district, equivalent to the present regimental area with its depôt. In those days a colonel commanded each depôt, and was considered, administratively, as the senior officer of the whole regiment, line, militia, and volunteers. Each volunteer battalion was affiliated—very loosely—to a "territorial regiment," which thus consisted of the line, militia, and volunteers of the area. Practically, however, the battalion was self-contained, its commanding officer financially responsible for all its receipts and payments, and its officers and men accepted under conditions imposed by the unit as well as under those laid down in army regulations. Within the unit, regimental traditions and standards of efficiency grew up with a rapidity which astonished professional soldiers. The establishments of battalions were very unequal, some battalions having eighteen or even twenty-four companies, and others four or five.

The Volunteer Force had in early days a few corps of light horse, but these soon died out. The yeomanry, was a distinct branch of the service, separate from both the militia and the volunteers. In practice, however, it was similar in type to the volunteers.

The yeomanry forms the cavalry of the second line troops. It was first instituted by Lord Chatham in 1761, and reorganized on the same system as the

volunteers in 1793. The Irish yeomanry did good service against the French invasion of Ireland in 1798, but in 1807 it was disbanded, although the English force was kept. It was embodied for a good part of the danger period when invasion was feared, but like the militia it was allowed to dwindle down after peace. It was not till the South African War that its number, increased, and then under the title of Imperial Yeomanry a special force, amounting to over 35,000 men, was raised for use in South Africa and did good service there. Since then the yeomanry has reverted to its old county organization and forms part of the Territorial Force.

The engineers and medical branches, whose military duties were more or less similar to those of their members in civil life, were well developed, but suffered from want of technical aids (transport and equipment), and also, like other volunteer branches, from haphazard distribution.

This was the state of things when, in the desperate need for expanding the Regular Army in the South African War, the War Office accepted the services, offered with enthusiasm, of both yeomanry and volunteers for oversea warfare. When that war ended, the force contained in its ranks an appreciable proportion of men with war service, and although, like the Regulars, volunteers were subjected to various experiments, it became certain that a real second line army must, sooner or later be fashioned from the cengeries of independent corps. This task

was undertaken by Lord Haldane and his assistants in the period 1908-1912.

The measures adopted covered both training and administration. In the first place, the infantry brigades were made real and permanent units with adequate staffs; in the second, the huge formless mass of garrison artillery was recast as a second-line portion of the "Royal Regiment of Artillery," and divided, like the first-line portion, into (*a*) horse and field and (*b*) garrison; in the third, the brigades of infantry and artillery were grouped with Yeomanry Engineers, Army Service Corps, and medical units into divisions and mixed mounted brigades, each with its own staff, almost exactly after the pattern of the new Expeditionary Divisions; the only serious differences being the greater proportion of mounted troops available for divisional duty (Yeomanry), the organization of the batteries on a four-gun instead of a six-gun basis, and the different organization of the trains; and lastly, the officers were placed on the same footing as Special Reserve officers, *i.e.*, made subject to military law at all times, while the loose Volunteer system of membership was replaced by a four-years' enlistment. This last change, striking enough from the legal standpoint, in fact only sanctioned a practice that most Volunteer corps had introduced when the members ceased to serve at their own expense. The men, though legally free to leave at a fortnight's notice, contracted with the unit, in return for clothing and equipment, to serve for a given number of years. On the administrative side an equally—perhaps more—

important reform was introduced by the transfer of the administrative functions of both unit commanders and regimental districts to County Associations established in every county, and formed partly of officers and partly of local civil authorities, employers and other men of influence. The establishment of these local war offices has achieved truly wonderful results. Not only is the second-line army administered and recruited by them, but they have charge of National Reserves, Cadet organizations, remounts, care of wives and families of regular reservists, &c.

To the reformed Volunteers and Yeomanry was given the title of the "Territorial Force."

The Territorial Infantry is still organized on the old 8-company basis, but when it was mobilized in 1914 double-company working was introduced for field service and training. The establishment of the battalion, which is practically the same in peace and in war, shows no notable divergence from the war establishment of the regular unit. The battalions of the force form 4th, 5th, 6th, &c., battalions of the regiment, whereas the old Volunteer battalions were separately numbered (thus, the former 2nd V.B. Oxfordshire Light Infantry became the 4th Battalion of that regiment).

The London battalions, some of which were affiliated to the Rifle Brigade and King's Royal Rifles, and some to the Royal Fusiliers, Middlesex, Essex, West Kent, and East Surrey Regiments, were constituted as a new "London Regiment," in which there were no Regulars or Special Reserve, but Territorial battalions numbered

from 1 to 28. Two counties, Hertford and Herefordshire, with no old regiment of their own also count their Territorial Unit as "1st Battalion Hertfordshire," or "Herefordshire Regiment."

In the Volunteers, nearly every battalion had one or more cyclist companies. The Force played a conspicuous part in the development of cyclists as an arm of the service, and may, indeed, be said to have originated it. Cyclist manœuvres, on a larger scale than any attempted by the regular armies of Europe, have been carried out on several occasions. With the introduction of the Territorial Force, however, there was a change of policy. The cyclist companies attached to battalions all over the country were abolished, and instead battalions of cyclists only were raised at certain places for mobile defence against raids upon the coast. There are four cyclist battalions, viz., the Northern, the Highland, the Kent, and the Huntingdonshire.

Each battalion has a headquarters—some old, others new; some palatial, and others very inadequate. At these headquarters are the orderly room, the quartermaster's store, the armoury, officers' and sergeants' messes, men's club rooms, and generally a miniature-rifle range and small drill-shed.

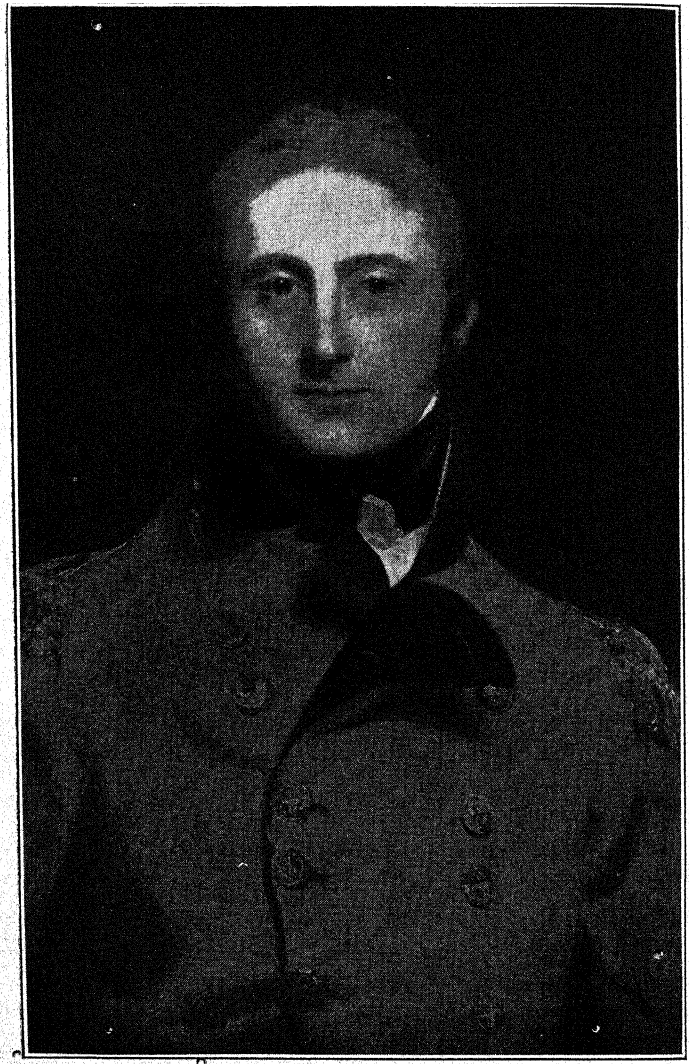
The cavalry of the Force is the old Yeomanry, with the four-squadron regiment as its unit. Part of the Yeomanry is recruited in the great cities, but most of it is still a county force, officered by the country gentry and manned by farmers and their sons. It is framed, not on purely cavalry principles, but as a sort of mounted

infantry; at the same time, only a prolonged embodiment and the issue of the sword to all ranks are needed to convert the Force into a real cavalry, since it is essentially and not accidentally a mounted force. Part of the Yeomanry is allotted to the Territorial divisions as "divisional cavalry," and the rest formed in "mounted brigades."

The Artillery, as already mentioned, is classed as field and horse and garrison. The former is organized in "brigades," each of three batteries and an ammunition column, and the latter formed into separate units according to duties, viz.:—heavy field batteries belonging to the divisions, a mountain brigade in the Highland division, and groups of companies for service in the coast fortresses. Each unit, like the unit of infantry, has its own headquarters. The horse artillery, almost entirely a new formation, is allotted to the mounted brigades in the proportion of one battery with a small ammunition column to each brigade. The field artillery forms part of the divisions, three brigades of guns and one brigade of howitzers per division. There is also a heavy battery of the garrison branch, with a small ammunition column of its own, to each division.

The Engineers consist of two field companies and a signal company per division, a field troop and a signal troop per mounted brigade, as in the Regular Army, with, in addition, coast defence units, such as electric light companies.

The organization of the medical service is practically the same as that of the Regulars. The Army Service



vi.] SIR JOHN MOORE.

[Photographed by Messrs. Eyre & Spottiswoode from the Painting by Sir Thomas Lawrence

Corps organization, too, in which fast mechanical transport is freely used, is now in practice the same in system as the Regular Army.

Such is the framework of the Territorial Force. If the skeleton has been too scantily clothed in flesh, at least no one has disputed the fine spirit that animates both the flesh and the bone.

The organic life of the unit depends upon frequent association of its components throughout the year, and this differentiates the territorial from all other classes of second-line troops, the defence forces of our Dominions and the militias of the States of the American Union excepted. For on the Continent, the first-line army being itself a citizen force, all formations behind it are composed of its old soldiers who, except for a few days' training in one or two of their reserve years, remain completely in civil life and out of touch with soldiering. The same may be said of our Special Reserve, for during the non-training period the unit (apart from its depôt "Regular Establishment") practically does not exist. With the Territorials, however, there is a weekly or bi-weekly drill for all ranks, men's club, sergeants' mess or officers' anteroom open every evening, classes for non-commissioned officers, war games for officers, regimental and company concerts, dances, dinners, musketry on the miniature range, first-aid classes, recruit enlistment, Swedish drill—some of these always in progress for five or six evenings in the week. This constant association, military and social, formal and informal, is a great set-off against the small amount of training which the men

are actually obliged to perform in the evenings. It makes a solidarity, which is different in kind from the solidarity of a professional regiment and perhaps feebler also in efficacy, yet not at all to be ignored in estimating the military value of the force. Such a force as this proves in war to be either much above or much below its "form" as judged by peace-time standards, hours of training, &c.

The permanent staff of the unit (battalion, regiment of yeomanry, brigade of field artillery, or group of companies, &c., in other branches) consists of an adjutant and colour-sergeants of the Regular Army, with a few storemen, &c. Otherwise the Territorial Force is wholly officered and manned by Territorials.

Although much work is done at headquarters, and in Saturday afternoon parades on such open ground as is available close at hand, the most important part of the training is undoubtedly that done in camp. Annually the force assembles in brigade camps and undergoes a fortnight's hard training under the supervision of the brigadier and the divisional general above him. The musketry course also is often combined with a short camp earlier in the training season.

A point not generally known, but important as affecting status, is that by the King's Regulations the Territorial Force is part of the Army.

When the Territorial Force was formed power was taken by the Government at the same time to form a Territorial Force Reserve, with certain auxiliaries thereto, such as the Technical Reserve of local

guides, electrical experts, commanders of navvy gangs, &c. These auxiliaries, however, were never formed, and the Territorial Reserve—largely through the wording of the regulations themselves—was a failure. The original idea had been to discourage re-engagements after the four-years term, so as to keep the active Territorial period short, and so pass as many men through the ranks as possible. It turned out, however, that a high proportion of re-engagements was essential to the good condition of the force, and from that moment the Territorial Reserve was doomed, because men were encouraged to remain in the active ranks instead of passing into it. It performed a useful function, however, in keeping on the Army List large numbers of officers who for one reason or another—generally change of residence—were unable to remain connected with their regiments. The rank and file of the Reserve, however, number only 1,600. A useful little force known as the Special Service Section exists. The men in it engage to serve in time of emergency for a month, even if the whole Territorial Force is not embodied. They were employed at the beginning of the War to guard special points on the coast and others of importance.

A portion of Territorials, called the Imperial Service, and which numbers 19,000 men, have signed an agreement to serve outside the United Kingdom in time of need.

The functions of the Territorial Force Reserve are now performed by the National Reserves. This was one of

the most remarkable results of the years of tension that intervened between the South African and the German wars. Long ago it had been suggested that, just as Continental armies kept up their lists of older trained men for the great emergency, so we could form voluntary associations of old soldiers who had cleared off all their contract obligations and liabilities but were willing to come forward if needed. But it required the drastic reconstructions of recent years and the awakening of public interest in defence to bring the idea to fruition. The result was that, with little Governmental assistance, the County Associations were able to form lists and, indeed, to organize corps of ex-officers and soldiers of whom none had less than a minimum term of service in the Regulars or non-Regulars. In the year before the present war additional assistance had been granted by the War Office, and the members of the National Reserve had been classified into three parts: I., those who undertook an "honourable obligation" to serve anywhere; II., those who undertook the same but for home defence only, and III., older men, past active service, yet capable of local semi-civil work in war. On the 1st October, 1913, the total strength of this force was 215,000. In this country, once we have caught our soldier we prefer to keep him till old age rather than compel younger men to do their duty.

Another outgrowth of the recent changes was the Officers Training Corps, which was formed out of the former school cadet corps and University Volunteers, and was placed under the direct supervision of the

General Staff, and, besides being trained in somewhat the same way as Territorials, held periodical examinations of its members in military subjects (practical and written). Some indeed hold that the Corps, besides pouring fairly-trained young officers of a good stamp into the Special Reserve and the Territorial Force, has proved itself the salvation of the "New Army."

The O.T.C. was only one expression of the spirit of our youths and boys. The Boy Scouts, founded by Lieut.-Gen. Sir R. Baden-Powell, are ubiquitous and by now famous. In barracks, in camp, on the coast, on railways, even in the War Office itself, these boys are always to be found performing all sorts of duties with cheerfulness and keen common sense. But many years before the scouts came into existence there were corps numbering many thousands of boys who, by the initiative of Church and other social workers, were formed into companies and battalions of cadets. A certain number of corps figured in the Army List as affiliated to regiments of the Line, and one, the 1st Cadet Battalion of the King's Royal Rifles, has the battle honour "South Africa, 1900-2" on its appointments Of the non-official bodies by far the largest were and are the Boys' Brigade and the Church Lads' Brigades All cadet corps and scout organizations are now recognized by the War Office, which is represented in its dealings with them by the local County Associations. It is difficult to form any estimate of the number of lads who in these corps have undergone some form of military training. A careful calculation, however, was

made in 1906 by Colonel Sir Reginald Hennell, D.S.O., of the King's Bodyguard (Yeomen of the Guard), and this showed that roughly 43,000 boys were then under part-time military training in these corps, official and unofficial.

This brings us to consider what proportion of our population has in fact subjected itself voluntarily to some form of military training and service. It is an interesting, if complicated, problem to obtain sound statistical results, since we have, of course, no conscription lists to go by, and the men escape us after performing their comparatively brief contract period of service. But whether the results be stated in terms of annual intake or in terms of gross totals, they are surprising indeed.

The question is, What is the number of men who annually attempt to join the forces of the Crown, calculated on the basis of one man one service? The following calculation was worked out for a year in which intake for the Territorials was 10,000 below the normal.

MILITARY.

Recruits—Regular	30,316
,, —Special Reserve	21,391
,, —Territorial Force	57,945
$\frac{1}{8}$ of O.T.C. (representing one year's intake)	3,000
$\frac{1}{2}$ Cadets at Sandhurst and Woolwich ..	828
Young Officers joined (about)	1,040
	114,519

Military intake	114,519
Deduct transfers from Special Reserve to Regulars, Territorials to Regulars and Special Reserve, and some 5,000 men eligible for Regulars who joined Special Reserve after rejection for Regulars ..	21,622
Net effective intake, Military	92,897
NAVAL.	
(Statement in Parliament on July 7, 1913.)	20,895
Total intake ..	113,792

The gross annual contingent, *i.e.*, all males attaining the military age in one year, is about 415,000, of whom, on Continental experience, rather more than 50 per cent. would be eliminated for medical and other reasons, leaving, say, 205,000 able-bodied youths. Making one or two necessary deductions (principally for seamen who are not naval reservists, but whom a conscription law would count in as such), and bringing Territorial intake to its normal by adding 10,000, we arrive at the conclusion that each year 123,000 or so of our able-bodied males actually join one or other branch of the Services. This is, roughly, 60 per cent. Now, taking the Japanese figures for their recruiting during the Russian war as a guide, we find that a total of 20 such contingents would give an effective on mobilization of 75 per cent.* of $123,000 \times 20 = 1,845,000$ men, and as, on

*These percentages are the means shown by the smoothed curves which are obtained by plotting the figures given by the Japanese War Office.

the whole, the tendency of recent years has been to restrict intake by stiffening the terms of service and training liabilities. we may assume that such a rate of intake has been maintained for the past 20 years. Add 5 older classes so as to cover the whole liability period customary on the Continent, and (again on Japanese experience) take 48 per cent. of their original numbers as available for service at the moment of mobilization, and we obtain 295,000 more. Calculated from the net annual contingent, therefore, our total strength in more or less trained men of military age should now be 2,140,000, without crediting ourselves with exceptional intake in years such as those of the South African War or debiting against ourselves the formerly smaller intake of the Navy.

CHAPTER IV.

OUR MILITARY PROBLEM.

A Threefold One—India, Egypt, and the Colonies—Expeditionary Forces—Punitive Expeditions—Wars with Great Powers — Home Defence—Methods of Expansion—Some Conditions to be Faced.

THE foregoing chapters show the constitution of our armed forces on land. How inadequate they were—and still are—may be gathered from a brief survey of the military problems with which the Empire has always been confronted. These problems were—and are—three, viz. :—

1. The defence of the British Empire beyond the seas.
2. The protection of our interests abroad, for which an adequate Expeditionary Force is needed.
3. The protection of Great Britain and Ireland from invasion.

Our military liabilities to the rest of the British Empire, now greatly reduced by the fact that the self-governing Dominions are providing for their own land defence without Imperial aid, are chiefly in respect of India, the Mediterranean, and the coaling stations.

Our foothold in India, as every schoolboy knows, was gained by the Honourable East India Company, a trading concern which ended by becoming a semi-sovereign body. It was not until the middle of the 18th century that King's troops were sent out, and then they were, as it were, hired by the Company to supplement their own army of whites and natives. As the British possessions in India grew and the Company developed into the Indian Government, the number of King's troops increased until they were no longer simply auxiliaries but the most important force in the Dominion. When, therefore, after the Mutiny of 1857, the Crown superseded the Board and took direct control of the great Empire, the Company's white troops were absorbed into the Queen's Army, and not *vice versa*,* while the native army was reconstructed on better foundations of faithfulness, discipline, and military quality. A definite ratio between white and native troops (about 1 : 2) was laid down. Whereas in 1856 there had been 30,000 Queen's troops and 10,000 Company's white troops to 240,000 native soldiers, in 1893 there were some 73,000 Queen's troops (in addition to European and Eurasian volunteers) to 147,000 natives.

Here, clearly, the problem was one of internal defence. But presently there came forward the problem of external defence against a European enemy, Russia, whose steady advance to the borders of Afghanistan more than once brought Britain to the verge of war.

* Not without difficulties, however. Lord Canning himself wished for an army "all his own," to use the old phrase, serving in and for India alone, side by side with the British troops proper temporarily stationed there.

In spite of the Egyptian, Indian, and South African Wars, it was above all the problem of Indian frontier defence that absorbed the attention of the military authorities, and it was not until Lord Kitchener's scheme of re-grouping the forces in India was completed in 1909 that this problem could be considered as solved. The essence of that scheme was the distribution of all available forces permanently along the great strategic railways which in the northern part of the Indian Empire converge on the Middle and Upper Indus and on the southern on the approaches to Quetta. At the same time the establishments of staffs and transport services were remodelled and augmented.

It was evident, however, that to sustain a great struggle India would need more than her local resources, great as these were, and that in any event, while there was possibility of danger from the north-west, India could not spare any large proportion of her garrison for field service in other parts of the British Dominions. And in fact, the Army in India bore practically no share in the South African War. How greatly the problems of external defence had come to dominate those of internal upholding of authority was proved by its contrary in 1914, when the mere fact of Russia's alliance with Britain and France enabled us to draw from India a second Expeditionary Force practically at the same moment as the first left Britain itself.

India alone needed peace garrisons on the scale appropriate to a great war. The various self-governing colonies had taken upon themselves, one after the other,

the burden of local defence on a large scale, although none of them was in immediate contact with the frontiers of a first-class military Power, and in the existing state of foreign affairs the hostility, or even the unfriendly neutrality, of the United States or Japan was very unlikely. For these Dominions, therefore, as indeed ultimately for India too, the problem of Imperial defence was the problem of what each would furnish to the expeditionary force.

The Mediterranean problem of defence was wholly different. Here the colonies to be guarded were important less in themselves, as members of the British Empire, than for their *rôle* in the naval defence of the Empire. This, as every one knows, hinges upon the control of sea communications, and therefore upon the adequate guarding of ports on those communications. Conversely their preservation, even more than that of a great self-supporting member of the Empire, depends upon our sea power. In each case, therefore (except Egypt, which like India has a great hinterland), the Army's problem is that of local defence by the local garrison. If that garrison is in danger of siege, it must be maintained on a strong peace footing, but need not consider either wastage or expansion on the field warfare scale. Egypt, however (an India in miniature, so to say), needs a field force in addition to the native army of the Khedive to cope both with internal and external defence. In short, the problem of the Mediterranean from the Army's point of view is chiefly one of adequate fortress garrisons, but action by the home expeditionary force,

or part of it, cannot be considered as unlikely in the case of Egypt.

In the category of coaling stations we include not only the oceanic posts of the naval lines of communication, such as Hong-kong and Bermuda, but also some political outposts of the Empire, such as the North China garrisons, where detachments of Imperial troops are stationed as escorts for our officials or guards for our resident nationals. In so far as any of these represents an actual or future protectorate over the country in question, their military conditions resemble those of Egypt—that is, reinforcement by part of the home expeditionary force may become necessary in war. Otherwise they are, like the Mediterranean garrisons, defensive posts on a fortress footing, kept in peace time somewhat, but not greatly, below their war footing.

These and many other factors—varying climates and invaliding rates, and magnitude and distance of possible attacking forces, and so forth—make up a problem of peace organization such as no other military nation has to face. The overseas garrisons of most nations, Germany amongst them, are minor defensive or police forces, representing a drain on their home military resources equivalent to Singapore and North China in our military economy. France and Holland alone keep up large field forces as well as garrisons abroad,* and even France has only one-eighth of the general service force that we are obliged to maintain.

* The Belgian Army contributes only officers and non-commissioned officers for the army of natives in the Congo.

Nor is it only by reason of its magnitude, but also on account of its complexity, that it is a difficult problem. If, as is the case with the Dutch, the colonial army establishments other than fortress garrisons were purely for internal defence purposes, it might be possible to organize the forces in India, and even perhaps those in Egypt, as a separate army. As we have seen, the Army in India was so organized for a long period, and even to-day there are not wanting advocates of the separate Army. But India and Egypt have external as well as internal defence to consider, and this brings in the question of an expeditionary force from home. Now, wars in these dominions may very well be of a kind which does not stir the average citizen to fighting point.* In principle, therefore, the expeditionary force must be a professional army. Further—and this was the point on which the older pre-Cardwell system failed—it must be an *army*, and no mere handful of battalions at home *plus* depôts for the battalions abroad. And this brings us to the second category of our military needs—expeditions from home.

These may be small punitive expeditions—against savage kinglets in the hinterland of some garrisoned coast district, or in entirely new ground, or they may be larger punitive expeditions such as those sent against Arabi, the Mahdi, and the Khalifa in the long series of Egyptian and Sudan wars, or, again, they may be full-scale operations against a civilized enemy, to

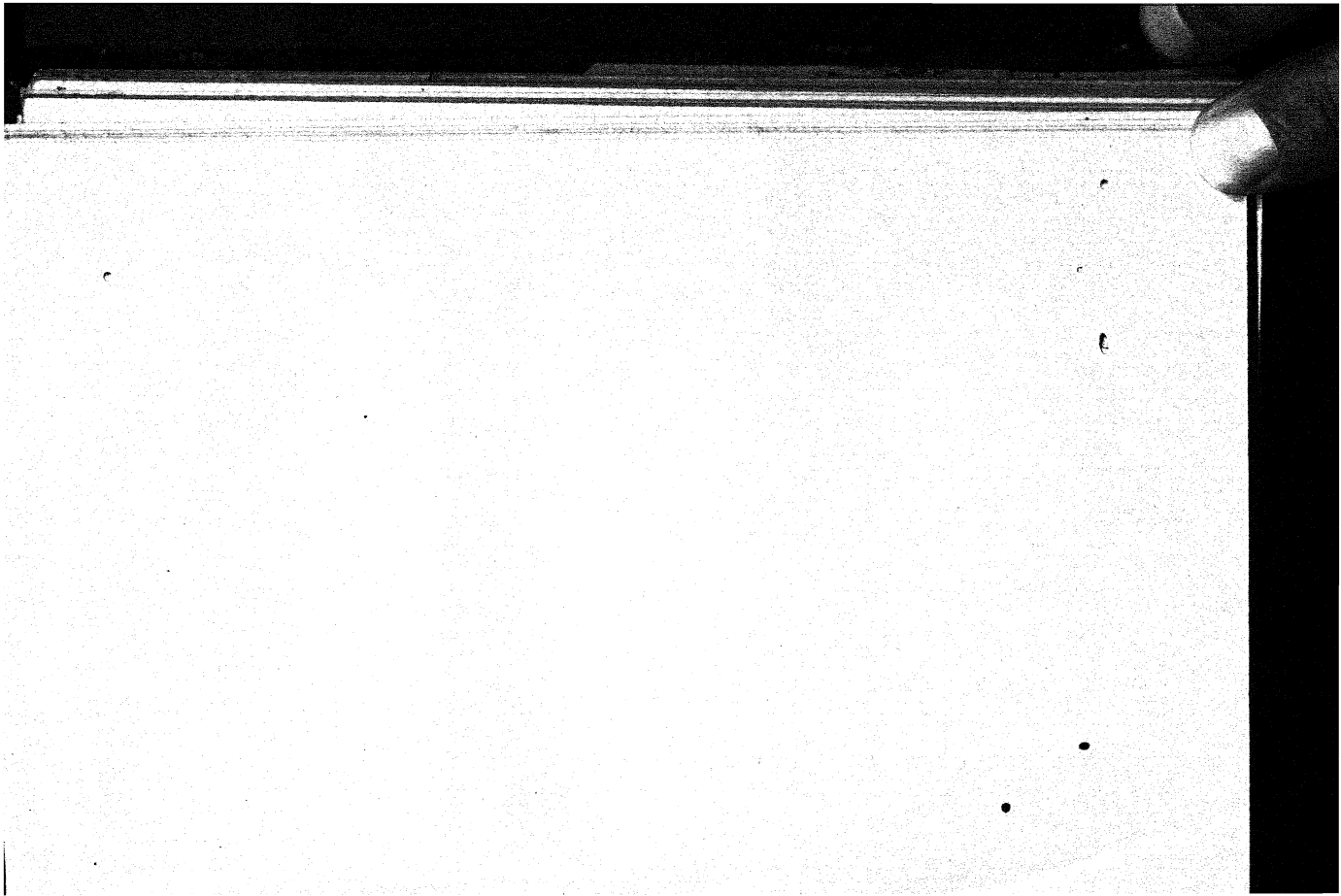
*That wars *might* do so, and in our case have done so, is true enough. The point is that the moral factors which would make such wars citizens' wars could not be reckoned upon in advance and made the basis of an army system.

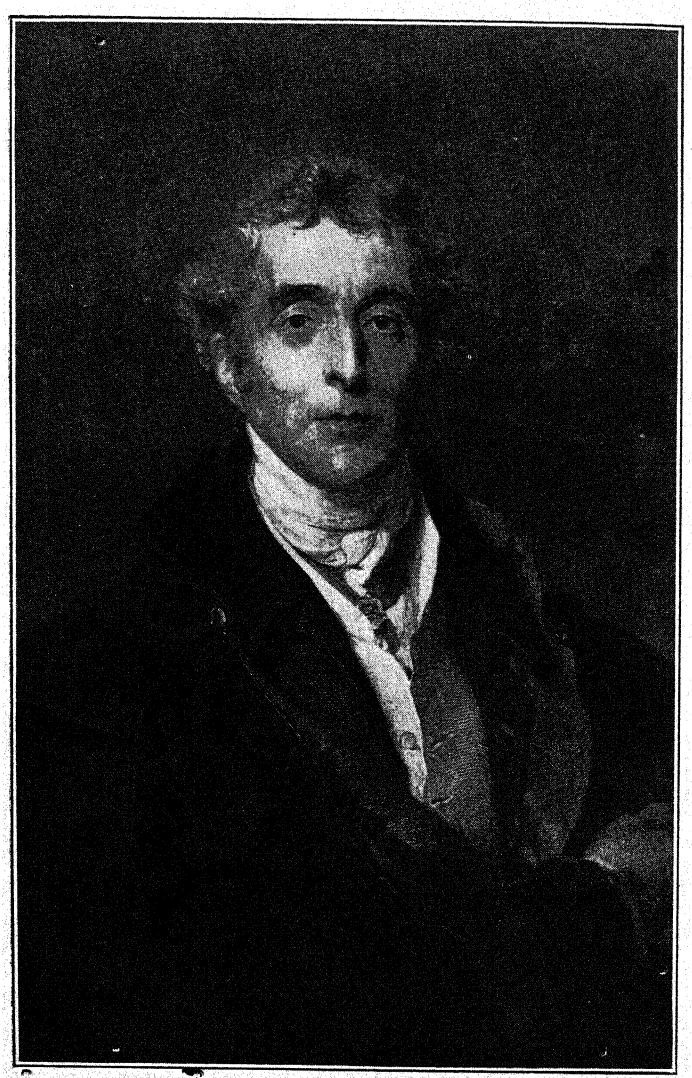
which the nearest approximation up to the outbreak of the present war has been the South African War of 1899-1902. The second of these types of war, and still more the first, fall obviously within the functions of a high-quality professional army. As we have seen, the volunteering system, in which regiments detailed for active service drew upon others to complete to war establishment, sufficed only for the first. Thus, even if it were possible to provide for the third and greatest kind of war crisis by means of a real short-service, reserve-producing army of the Continental kind—with or without conscription, with substitute or personal service—the second kind, too serious to be dealt with by a small expedition of highly-trained professionals, yet requiring professional quality in a comparatively large force, called for an army similar to that which formed the great peace-time armies of occupation.

It has now been established—the premises being assumed to be sound—that for overseas armies and posts and for all expeditions from home short of the first-class war, our army system must provide and maintain a large professional army. Whether this is true for the first-class war, the greatest emergency of all, is a disputed point, about which in recent years bitter controversy has raged. On the other hand, the smallness of the forces available for action in Europe was evident enough. Compared with the armed millions of France, Germany, and Russia they were a mere handful. On the other hand, it could be said that, given the apparent

equilibrium of forces in Europe, the handful in question was of considerable value to an ally, and that composed as it was of the only professional soldiers in Europe, it was capable of accounting for much more than its own numbers of the citizen troops of the enemy. Which view was correct need not now concern us, since although hundreds of thousands of volunteers who came forward in 1914 to reinforce our external army, their passionate interest in the struggle could not have been reckoned upon when we were making our arrangements in cool blood for such an event. What does concern us is the facts of the army system that was intended and created to serve this as also other purposes of war.

The case for the British Army, as constituted by the Cardwell scheme, is therefore an exceedingly strong one as regards the duties of category (*a*) and very largely those of category (*b*). For category (*c*)—home defence—it needs no special provision. The force at home was based on general needs, and stood in no relation to the problem of home defence. This we regard primarily and, indeed, almost exclusively as a naval problem. It is laid down that he who commands the sea for one purpose commands it for all purposes, and, therefore, that any naval conditions which would make it possible to send the expeditionary force oversea would *ipso facto* be conditions rendering an invasion of Great Britain very difficult. It was held, therefore, that citizen troops, partially trained but completely organized in peace time, would "amply suffice," to quote the judgment of





vii.] THE DUKE OF WELLINGTON.

[Photographed by Messrs. Mansell & Co., from the Painting by Sir Thomas Lawrence.

the great French general, Langlois. Surprise invasion would find the expeditionary force at home, and if invasion should occur after command of the sea had been wrested from us by the enemy, the citizen force called out for permanent service at the declaration of war would have completed its training and be ready to cope with it.

There were other aspects of home defence not purely military, yet indirectly affecting the military problems. Such were the duties of local authorities and of government departments other than the Admiralty and the War Office, the maintenance of the civil authority against rioting, the very grave problem of our food supply, the control of foreigners, the continuance of trade and industry as far as circumstances allowed. Some time before the war with Germany, the Committee of Imperial Defence had caused to be prepared and circulated a confidential "War Book" in which regulations for all these matters were made, ready to be brought into effect when the time came. Forces auxiliary to the organized Territorial Force—some public like the National Reserve, some private like the rifle clubs and the Boy Scouts' organization—would, it was expected, provide the *personnel* for these latter arrangements, besides a reservoir of recruits for all branches of the Army on service.

This question of expansion was, in fact, one of great importance considering the numerical weakness of the Regular Forces at home.

It was provided under the Cardwell scheme that

the last years of a man's engagement should be spent in the Army Reserve, in which he became a civilian,* paid a retaining fee and held at call. Nominally he was required to undergo short annual trainings, but in practice all that was exacted was a musketry course to ensure that his shooting and knowledge of the service weapon were up to date. No man has had less than three years' colour service, and the great majority have had seven. It is therefore a splendid mass of fully trained professionals.

Besides the Regular Reserve there is the Special Reserve. This force is liable for oversea service in war, and its function is to act as a partly-trained drafting reserve, whence are drawn from time to time reinforcements to replace the casualties sustained by the units on active service. (For further information about the Reserves see Chapter V.)

There is, further, the possibility of expansion by volunteering of units in the Territorial Force. This force, liable by the terms of its contract to home service only, and a thoroughly citizen force in character and form, is obviously available only for overseas wars in which the nation itself is stirred to take its part.

After the foregoing account of the purposes for which, and the conditions under which, our Army exists, we may close this chapter with an enumeration of some of the minor, yet in peace time almost equally

* From the legal point of view this is not altogether true, but, generally speaking, it correctly represents the reservist's conditions.

potent, influences that affected it before 1914. These may be stated as follows :—

(1) Parliament pays for the Army, and has declared it to be illegal that any standing Army should exist in the United Kingdom without its sanction. The constitutional struggles of the later Stuart period have embodied these principles in our law and practice. The effect of them is that Parliament audits every penny-worth of the Army accounts and prescribes rigidly not only the total number of men to be borne on the strength of the Army, but also the regimental establishments. A unit that has so many men allowed for it in the estimates may at no moment of the year exceed that number even though others may be below it. Establishment, therefore, for nearly the whole of the year is and must be greater than actual strength. The given figure is not the minimum necessary for coping with our military problems, but the maximum which it is simply illegal to exceed. One thousand men in addition to regimental establishments are voted every year to cover "temporary and occasional excess of establishment of all arms."

(2) The Indian Government, which pays for the British troops serving in India, imposes special conditions of its own, as also do the medical authorities of the Army. The effect of this is that no man is supposed to be sent from home to India unless he has four years* to serve,

*Men serving abroad at the moment of completing their seven years with the Colours may be held for an eighth year with a corresponding reduction in his reserve terms. The complications in the recruiting and drafting mechanism are not taken into account here so as to confine our account to the working of the system to its clearest cases.

is twenty years of age, and has completed his recruit year of service.

(3) Recruiting for the professional Army depends largely upon the openings that other callings offer to the intending recruit, *i.e.*, the state of the labour market; and, further, the Government (unlike Continental Governments with their duty armies) has to compete in the labour market by offering a living wage.

(4) Public opinion recognizes and insists that the Navy has the first call on the funds available for defensive and offensive preparations.

(5) Finally, the close regimental spirit of the Army opposes a barrier, which many so-called reformers have tried in vain to break, to all grouping of regiments by twos or fours for the purpose of equalizing the drafts and changes of establishment.

CHAPTER V.

THE RESERVES.

FUNCTIONS OF THE ARMY RESERVE—CONSTITUTION OF THE SPECIAL RESERVE—EXTRA RESERVE BATTALIONS—RESERVE OF OFFICERS.

THE question of Reserves for the peace Army has already been briefly touched on, but in this chapter it will be dealt with in more detail.

The Army Reserve consists of the trained regular soldiers who have been discharged after service with the colours, and remain liable to be called up on general mobilization until the end of twelve years from their original enlistment. Section A consists of those re-servists who volunteer to come up, if called upon, to complete to war establishment units detailed for a minor expedition and receives 1s. a day reserve pay; Section B forms the mass of the reserve, is liable only to be called up for general mobilization for war, and receives 6d. a day. Section D consists of men who after the 12 years' engagement is completed join this reserve for a further four years' liability. It is on the same footing as the rest of the reserve as regards pay and liabilities, but is only called up after the men belonging to the

A and B Reserves have been embodied. The reservist is liable to be called out for 12 days' annual training or 20 drills. He is kept in view by the officer in charge of records of his regiment, and in pay by the paymaster paying reservists. He may not leave the United Kingdom without permission, but in peace time this permission is practically never refused, and thousands of reservists go to the Overseas Dominions as settlers. Many others, men of energy, build up small businesses of their own at home,* and it is chiefly because the failures are more conspicuous than the successes that they strike the public's attention.

The relation between reserve strength and the term of colour service (total liability period being constant) has been touched upon before. Variations in the strength of the reserve are always due to changes in the term of service with the colours, the wastage in the latter years being much the same for the men who are serving out 12 years with the colours as for those in the reserve, and when the leading financial expert of the War Office tells us this we can appreciate the fact that there is a strong economic reason to weigh down the scales in favour of the reserve-producing Expeditionary Force at the expense of the colour-service overseas garrisons. In other words we get a better return for our money in paying for a reserve which is always ready when wanted abroad than in maintaining extra men permanently abroad.

*In the writer's own company three reservist sergeants who rejoined on mobilization were respectively farmer, proprietor of a carter's business, and proprietor of a cycle shop.

The Special Reserve was formed under the Haldane reorganization out of the old Militia, which, since its revival in the fifties of last century, and still more since its association with the Regular Forces under the Cardwell scheme, had lost little by little the characteristics of a citizen defence force and acquired those of a professional army. The process was completed by the conversion of the majority of Militia corps into Special Reserve units and the disbandment of the rest.

Thus reconstituted, the Special Reserve in 1914 consisted of a fixed number of battalions, representing an allotment of one or more reserve battalions to every line battalion at home, in addition to some Extra Reserve battalions. The ordinary 3rd or reserve battalion in peace time consisted partly of part-time soldiers and partly of a "regular establishment," the latter being a contingent of officers and men from the regular battalions posted to the depôt of the regiment for the training of recruits, both regular and special reserve. The training consisted of an initial long course of six months for the recruit, with an annual training of one month or thereabouts in every subsequent year of the man's service, the period of engagement being six years.

From what has been said already the reader will easily understand that the Special Reserve is in no sense a militia, but purely a training cadre for recruits of much the same type as those who join the line direct. About half the recruits annually enlisted for the Special Reserve do, in fact, proceed

into the Regular Army at the expiry of their Special Reserve recruit training. In many cases it is with the object of making a trial of soldiering as a career that the man joins. In many other cases he is a youth who by reason of age or under-development has not been accepted for the Regular Army, and hopes to benefit by the training he receives as a Special Reservist at the depôt to qualify himself physically and otherwise for acceptance by the line. Special Reservists can enlist at 17, and are qualified to pass to the line after six months' service in the Special Reserve. The minimum age for direct enlistment into the line is 18, and the man therefore gains six months by passing through the Special Reserve.

It follows from this that the war function of the Special Reserve is purely and simply to act as a feeder for its regular battalion in the field. Indeed, on mobilization its identity as a Special Reserve formation disappears, and it becomes, by the addition of men left behind by the regular unit and the surplus regular reservists, a "reserve battalion" which trains all recruits in barracks (not at the depôt) and passes them on, when trained, to the service unit as the latter's casualties require. In the extreme emergency of an invasion of Great Britain doubtless the Special Reserve battalions would have been employed as fighting units — though this was certainly not contemplated when the force was formed —but short of that extreme case their one function is that of keeping the fighting unit up to strength.

In addition there are twenty-seven extra reserve battalions on a lower establishment, and containing few or no regulars, which count as service units. Their function is to man defended fortresses at home or abroad—thus releasing regular units for field service—and to provide garrisons for posts on the lines of communication of the field army. For some years after the force was formed Royal Field Artillery Special Reservists were enlisted for the purpose of manning the Divisional Ammunition Columns of the field army, and also replacing the casualties of the regular field artillery at the front. But ammunition supply, like other parts of the transport system, has been modified in consequence of the introduction of motor lorries, and the ammunition columns that the Special Reserve field artillerymen were intended to form are now in charge of the Army Service Corps (Mechanical Transport Companies). Recruiting for the Royal Field Artillery Special Reserve was accordingly suspended, and the men already enlisted were simply left to serve out their time.

It need hardly be mentioned that all Special Reservists are liable for service abroad in war. The former Militia was not so, but in proportion as its character tended to become that of a drafting reserve for the line the practice of asking it to volunteer for service abroad grew more and more frequent, until at last it was a recognized practice. The cavalry of the Special Reserve (three regiments only)—viz., The "North" and the "South, Irish Horse," and "King Edward's Horse,"

known also as "The King's Oversea Dominions Regiment"—were on a totally different footing. They were typical citizen yeomanry, who had accepted Special Reserve training liabilities and were bound to serve abroad in war. They were not drafting reserves for the cavalry, but service units, and they were in no way linked to particular cavalry regiments. In fact, the Irish Horse of two regiments were only classed as Special Reserve because the Territorial Forces Act did not apply to their country, and King Edward's Horse because it was composed of Colonials residing in England, whose military liabilities at home were held to resemble those of the Special Reserve more than those of the Territorial Force.

The officering of the Special Reserve bears witness to its changed character. Whereas formerly, as Militia, it was commanded by county gentry, its officer corps, even before its conversion, had come to consist largely of retired regular officers,* and when to these was added the "Regular Establishment" the appearance of a cadre regular battalion was complete, the more so, as at the same time the creation of mounted branches of the new Territorial Force opened up to the county gentleman opportunities of part-time soldiering which the Militia had ceased to afford him. The young officers of the Special Reserve were drawn partly from the universities and public schools by the medium of the Officers Training Corps; but many were still candidates for commissions in the Regular Army who for various reasons preferred to enter the Army by this route.

* Service in the Militia after retirement from the line being made the condition of certain emoluments.

The conversion of Militia into a quasi-Regular force has not, however, been an easy process. The failure of the Special Reserve as such to achieve popularity showed how much the feeding mechanism already in virtual existence had owed to the purely Militia tradition. Many schemes were afoot for the reformation of the service conditions, in the hope of attracting recruits to the force, which was admittedly in a serious condition. When the emergency arose no difficulty was experienced in filling up the establishment, and more than filling it, in a few days. This does not prove that for a mere policy war in which the Expeditionary Force might have been engaged, but the people at large were not passionately interested, the scheme would have proved so successful. The appearances were, in fact, rather to the contrary, and as it was for just such emergencies—for the reinforcement of trained soldiers by half-trained soldiers—that the Special Reserve was created, it must be admitted that to enable it to fulfil its functions serious and far-reaching reforms would still have had to be undertaken.

The strength of the Army Reserve of all classes on October 1, 1913, was 145,000; that of the Special Reserve was 61,000, some 17,000 below its established strength. The Territorial Force numbered 246,000, roughly 67,000 below its proper establishment.

The Reserve of Officers needs some explanation. When the Army is mobilized for war officers are needed for a thousand and one jobs which are not necessarily filled in time of peace. For this purpose a Reserve of Officers is maintained. It consists of two classes.

The first is composed of retired regular officers in receipt of pay or who have obtained a gratuity. They are liable to recall up to ages varying with their rank from 50 to 67. The second is of a voluntary character and consists of regular officers, other than those in the first class, of officers of the Special Reserve or the old Auxiliary Forces (Militia and Volunteers), certain officers who served in South Africa, and ex-cadets of the Officers Training Corps who desire to join this reserve. All of these except those who have served with the Regular Forces must do a month's training with some regular unit annually. There is also another body known as the Special Reserve of Officers, usually with the rank of 2nd lieutenant or lieutenant. They are borne on the strength of the Special Reserve units, or as supernumeraries to units of the Regular Forces. They are chiefly to be found in the cavalry. On first appointment they do a probationary training, usually for one year, with a regular unit, and an annual training afterwards varying from 15 to 27 days according to their arm of the service.

CHAPTER VI.

THE WORKING OF THE REGULAR ARMY.

ARMY COUNCIL—INSPECTOR-GENERAL OF THE FORCES—THE COMMANDS—THE REGIMENT—FRAMEWORK OF THE ARMY—CHARACTER OF MEN AND OFFICERS.

THE supreme head of the Army is the King. It is administered and governed by the Army Council, a body consisting of four military and three Parliamentary members. The four military members are:—The Chief of the Imperial General Staff, known as the First Military Member; the Adjutant-General to the Forces, Second Military Member; the Quartermaster-General to the Forces, Third Military Member; and the Master-General of the Ordnance, Fourth Military Member. The three Parliamentary members are the Secretary of State; the Parliamentary Under-Secretary of State, known as the Civil Member; and the Financial Secretary. The Secretary of State for War is at the head of the Council, and he is responsible to Parliament for the proper disposal of the money voted for the maintenance of the military forces. In virtue of his powers he can take action without the consent of the other members. The four military

members are his technical advisers and heads of the great branches of Army administration. Broadly speaking these are as follows :—The Chief of the Imperial General Staff has under him all matters connected with obtaining information about foreign countries and their Armies, the organization of the General Staff, the defence of the United Kingdom, the training and education of officers and men, and the compilation of the various official books and manuals used for this purpose. The Adjutant-General deals with raising and organizing the forces ; their distribution, discipline, and military law ; medical and sanitary matters ; recruiting and prisoners of war ; and further has various duties connected with mobilization. The Quartermaster-General has to make the necessary arrangements for transport and supply ; the custody and issue of all military stores, including clothing and the maintenance of proper reserves of these ; the postal service during war ; the veterinary service and the provision of horses. The Master-General of the Ordnance, as his name implies, has under his charge all questions concerned with provision of weapons of all kinds ; the construction and maintenance of fortifications, barracks, hospitals, and store buildings, and various matters connected with these.

Under the Parliamentary Under-Secretary of State are placed the administration of lands belonging to or hired by the War Office ; and, most important of all, the administration of the Territorial Force, in which he is aided by a military officer known as the Director-

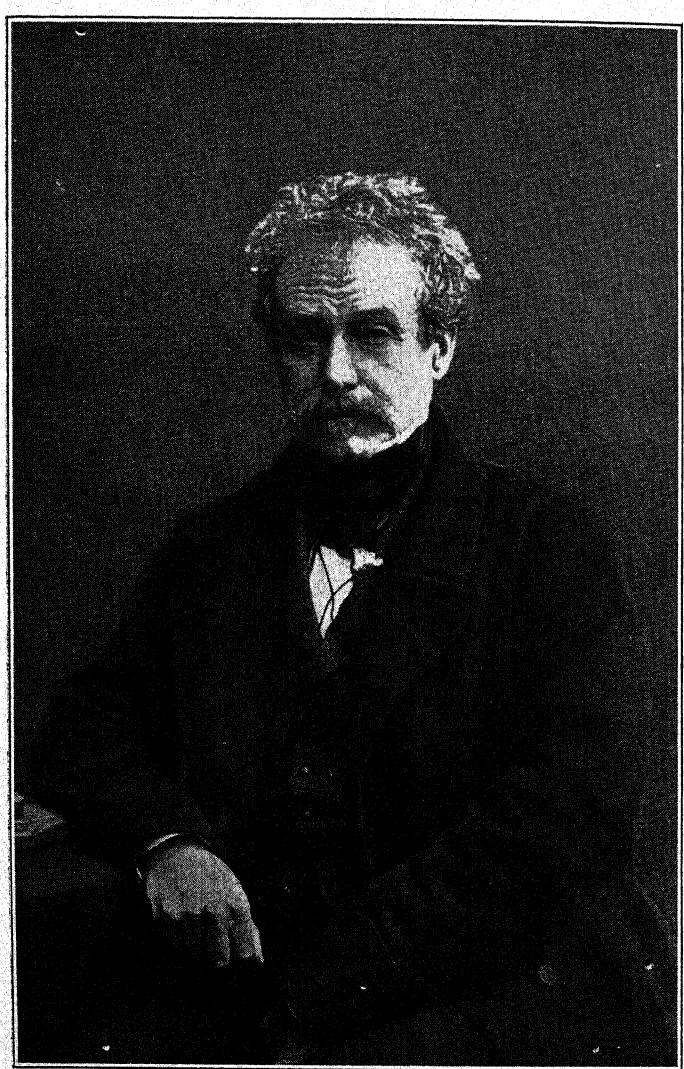
General of the Territorial Force. The Finance Member deals with the preparation of the annual estimates for presentation to Parliament, and other financial matters, such as the audit of accounts and contracts for the supply of the wants of the Army.

Lately, another branch of the War Office has been instituted under the direct supervision of the Secretary of State known as the Directorate of Military Aeronautics, at the head of which stands a Director-General.

Responsible to the Army Council, but separate from it, is the Department of the Inspector-General of the Forces, a high and important office that was created at the same time as the Army Council in order to replace, in a measure, the personal work and influence of the former Commander-in-Chief, whose functions had devolved upon the impersonal Council. The successive occupants of this post have been the Duke of Connaught, Sir John French, Sir Charles Douglas and again Sir John French. He or his subordinate inspectors of Cavalry, Infantry, Field Artillery, &c., inspect, and report to the Council upon the efficiency and war-readiness of all parts of the Army at home, and make recommendations to the Council upon matters affecting these qualities. Similar functions, as regards troops on the Colonial establishment, not including India, where the troops, under their own Commander-in-Chief only, are exercised by the Inspector-General of Overseas Forces, who is also Commander-in-Chief of the Mediterranean garrisons. For a short time, before this inspectorate

was established, Lord Kitchener held this command, and it was largely owing to his representations, backed by his resignation, that his successor, Sir Ian Hamilton, was given wider powers. Both Lord Kitchener and Sir Ian Hamilton, as virtual and actual Inspectors-General, were invited by the self-governing Dominions to visit and report to the Dominion Governments upon the efficiency and needs of their local forces.

For administrative purposes Great Britain and Ireland are divided into seven "Commands." These are the Aldershot, the Southern, the Eastern, the Western, the Northern, the Scottish, and the Irish, London, with quarters of Guards regiments, forming a separate London district. Each of these Commands has a General Officer Commanding-in-Chief, who, aided by officers of the General Staff under him, controls the troops—Regular, Special Reserve, and Territorial—quartered therein. He has also a Major-General (or Brigadier-General) in charge of Administration, aided by staff officers of the administration staff. Although this officer is under the Commander-in-Chief of the Command, he has power to deal with all administrative matters not involving matters of principle, and he can correspond direct with the War Office on all such questions. For many years the functions of command and of administration were exercised by the same general and the same staff, and although the latter was divided to some extent according to duties, the general himself had little leisure to spend in superintending the training of the troops, most of his time



viii.] LORD CLYDE. [*Fradelle & Young*

being absorbed in routine and office matters. Now, however, his hands are free, and he can direct and influence the training of his troops personally and through his general staff officers. As at the War Office, so in the Commands, the functions of administration and operations are kept as distinct as possible, and even in the smaller units (divisions and brigades), though no second general is provided for administration, the same principle is applied.

The Commander-in-Chief of the Command exercises control over all the troops in it. For administration, however, the Territorial Divisions and Mounted Brigades are not under the Major-General in Command administration, but under the Associations of the various counties from which their component parts are recruited. In some Commands there are certain coast defences which are under a special commander. The most important of these is that known as the Eastern Coast Defences, with its headquarters at Chatham, while others exist at Dover for that town and Newhaven; at Harwich; at Newcastle in the Northern Command for the Tyne, the Tees, Hartlepool, and the Humber. In the Southern Command, Portsmouth and Portland, Plymouth and Falmouth. In the Western Command for the Mersey and Barrow, Milford Haven and Cardiff. In Scotland for the Forth, the Clyde, the Tay, and Aberdeen. In Ireland for Lough Swilly and Belfast, Queenstown and Berehaven.

Each Command contains a certain number of divisions. Thus the Aldershot Command has the 1st and

2nd Divisions. Each of these has three infantry brigades numbered consecutively. The 1st has the 1st, 2nd, and 3rd Infantry Brigades; the 2nd has the 4th, 5th, and 6th Brigades, and so on, so that the 6th Division is composed of the 16th, 17th, and 18th Brigades. Every division has in addition three artillery brigades, each of three batteries of field artillery armed with six 18-pounder field guns, one battery of six howitzers, and one heavy battery of four heavy guns. Sometimes part of a division's troops will be found in another Command than that in which the bulk of the division is stationed, but as far as possible every division is kept together. The reason is obvious: it facilitates putting it on a war footing. A division has also a squadron of cavalry, and engineers and other services. But British divisions are unlike their Continental equivalents in one important respect. They are always composed of the troops that occupy the particular stations allotted to that division. As we have seen, the units of the Army at home are constantly being interchanged with the units abroad, and there are numerous "moves" of units from one home station to another. The troops of the brigade, and therefore of the division, change from time to time. The 12th Brigade, for instance, always forms part of the 4th Division, and has barracks for four infantry battalions; but the battalions occupying these barracks may vary in different years.

The Commands are also subdivided for recruiting and reservist management into Grouped Regimental Districts. At the headquarters of each of these districts

is a senior officer, who manages the work of his grouped areas, and under him are the record offices, one to each regiment and regimental area, where the papers of each soldier and reservist are dealt with.

In the British Army, even more than in others, the regiment is the soldiers' family, to which officers and men serving or retired look. Men come and go, but the regiment goes on from its Marlborough to its Granby, from its Wellington to its Crimean and South African honours, and in that career it develops its own attributes and mysteries, known only to the regiment itself. Half the anecdotes that are told of the British soldier have reference to his regimental customs, which prescribe particular ways of doing or saying particular things. To the same category of regimental customs belong the minute peculiarities of uniform in which the men and officers of a regiment glory—the metal badges hand-cut and not die-stamped, the adornments of the Highland officer which even the big volume of Dress Regulations for officers can only describe as being of regimental pattern, the white collar and tie of the Oxfordshire, the sergeant's sash worn as an officer's sash of the Somersets, the black line in the gold lace of the East Surreys that commemorates the death of Wolfe, the double helmet-plate, before and behind, of the Gloucesters, and so on. It is this personal reverence and regard for the regiment which has brought into being the Old Comrades' Association, at which officers and men both meet annually "to fight their battles o'er again,"

and which look after and care for any man who has served in corps to which they all have belonged.

This characteristic *esprit de corps* produces a hearty rivalry between regiments, and is the most potent factor for good. But the standard of efficiency to which the rivals must tend is now laid down by the inspectorate and the general staffs of commands and divisions, and a working uniformity of method and doctrine, a common language, has been ensured by the issue of Field Service Regulations in which the principles to be observed in operations of war are laid down, not in hard-and-fast rules, but in authoritative indications. Not even between the different categories of infantry, Fusiliers, Grenadiers, Rifles, Light Infantry, and line, each of which had formerly its own kind of duties and tactical procedure on service, is there now any distinction save in details of ceremonial and uniform. When, therefore, later in this brief account of the Army, we describe the procedure of "an" infantry battalion, it must be understood that there are differences of method (and of course differences in efficiency) between battalions, but no differences of principle. But it must also be understood that "a" battalion is an abstraction, which may exist in Continental armies, but does not exist in our old 18th-century regiments, each of which has its own corporate life, traditions, habits, and characteristics.

The same may be said of our cavalry, in which the regiment has never been other than what it is. In the infantry the enforced welding of the old one-battalion numbered regiments into two-battalion titled regiments,

which threw together battalions with different records and customs, has not even now been forgotten. The old cavalry regiments, on the other hand, have only been loosely linked, so that men posted to a foreign regiment can be attached to a home regiment until fit to go out with a draft (see above). Moreover, uniformity is cheap and peculiarities are expensive, and cavalry is better able to indulge in the luxury of regimental customs than the other arm. But the constant changes of station, in both cases, bring the unit under different brigadiers and divisional generals, all of whom teach substantially the same doctrine, while the change of brigade tends both to neutralize the individual fads of particular brigadiers and to prevent purely regimental practices from hardening into an iron law.

As for the artillery and the engineers, though they present to the outer world a stiff regimental front, the parts of each within itself are completely interchangeable. With a few exceptions, the traditions and habits of one battery are the traditions and habits of all batteries, and free circulation of officers and men throughout the corps forbids particularism of any kind. But it must not be forgotten that many batteries have a proud past, and glory in it.

In sum, in establishments, form, and, so to say, the technique of administration and tactical procedure, as also in the tendencies and outlook of all ranks, the Army is one, and the figures and tables of its "establishments" and "field-service" in annals are therefore representative of realities.

The various parts of the Regular Army may now be briefly described; further details of some of these will be found in subsequent chapters.

The Infantry regiment, having always one battalion abroad and one at home, is in no way a tactical unit, and even when the two battalions happen both to be engaged in some overseas war they are not brought together in the same brigade, still less placed under a single regimental commander. The tactical, and also for most purposes the administrative, unit is the battalion, with four companies of about 250 each (including the details employed by battalion headquarters). The company is commanded by a junior major or senior captain, who has a captain as second in command, and consists of four platoons numbered 1 to 16 through the battalion (a B company, for instance, containing Nos. 5, 6, 7, and 8 platoons). Each platoon is commanded by a subaltern and divided into four sections under corporals or lance-corporals. A company sergeant-major assists the company commander, and a company quartermaster-sergeant, under the supervision of the second captain, carries out pay, supply, clothing, and clerical duties for the company. Both these have the old rank of colour-sergeant. Each platoon subaltern has a sergeant as his second in command. The four-company organization has not yet been applied to the British army in India or the Special Reserve, or the Territorial Force. The headquarters of the battalion remained practically unaltered under the new scheme.

The Cavalry regiment is a self-contained unit in every

way. The commanding officer is a lieutenant-colonel, under whom are the major second in command, adjutant, quartermaster, regimental sergeant-major, regimental quartermaster sergeant; and there are in addition certain details peculiar to mounted troops, *e.g.*, shoeing smiths. The squadron is commanded by a major, who has a second captain under him, and consists of four troops commanded by subalterns, each of which has its proportion of non-commissioned officers.

The Royal Artillery is classified into Royal Horse and Field, and Royal Garrison. In the Horse and Field the old unit was the battery of 6 guns, but since the South African War the batteries have been permanently grouped into so-called "brigades" under lieutenant-colonels. The brigade consists of three batteries and an "ammunition column," save in the case of the Horse Artillery, whose brigade consists of only two batteries and ammunition column. These forty-five brigades of field artillery and thirteen of horse artillery are numbered consecutively through the branch, as also are the field batteries; the horse batteries are, however, lettered. In addition to these service brigades, there are six reserve brigades separately numbered, which are maintained in peace as nuclei for expansion and form a sort of special reserve for the branch There are also depôts for recruits, in close association with the reserve brigades. In India additional ammunition columns have been formed.

The Royal Garrison Artillery has many duties to perform. It mans the fortress and coast defence guns, the

siege train, the heavy field batteries attached to divisions, and the British mountain batteries in India. The explanation of this last—for it seems incongruous that the very lightest and the very heaviest guns should be handled by the same branch—is that the unpacking, putting together, and packing of these guns, like the heavy artillery work, needs men of exceptional physique. There are 100 companies of Garrison Artillery, numbered from 1 to 108 (some numbers, representing disbanded companies, being omitted), 12 of which form heavy batteries for the field army and 5 siege companies. The mountain batteries number 9—8 in India and 1 in Egypt. There is no permanent organization higher than the company; the needs of the various fortresses differ so much that it is best to allot their respective Royal Garrison Artillery contingents, so to speak, in bulk.

The Royal Engineers, like the Royal Artillery, form a single corps of many small units. In their hands are the fortress and to some extent the field engineering, the earthwork and mining of sieges, the construction of roads and railways, the bridging, provision of barracks, water supply, survey duties, printing and lithography, and many other things, especially the new Army Signal Service, which manages the transmission of orders and messages in the field by motor-bicycle, horsed dispatch-rider, telephone, wireless, telegraph or flag signal. Until lately the Air Service (such as it was in its early days) and the coast submarine mining were also in charge of the corps, but these services are now undertaken by the Royal Flying Corps (Military Wing) and the Navy

respectively, though the Royal Engineers retain control of the electric searchlights and beams that are worked in concert with the guns of the Garrison Artillery. The great depôt and training centre of the corps is Chatham. There are 29 fortress companies, 14 field companies, 3 companies of the coast battalion, 2 railway companies (which work an experimental railway at Woolmer Forest), and 3 survey companies—all these numbered from 1 to 59 (some numbers omitted)—9 depôt companies at Chatham, and 1 in India, 16 squadrons, troops or companies of the Signal Service, and a field squadron and field troops which perform for the cavalry division the duties that field companies perform for the Army at large ; besides various other formations.

It has been truly remarked that an Army fights on its stomach, and experience shows that unless troops are properly supplied with food any lengthened operations are difficult, any prolonged and strenuous exertions impossible. In the present war it is well known that the corps responsible for bringing up food to the Army—the Army Service Corps—has done its duty right manfully, and has largely contributed to the measure of success obtained by our forces.

For many years the commissariat was a purely civil organization administered by the Treasury, with the result which always attends executive duties when undertaken by those whose training leads them to prefer economy to efficiency, *i.e.*, hideous failure. The soldier might starve that pennies should be saved for the Treasury. Various attempts were made to give a

semi-military organization to the department; but success dates only from 1888, when the present Army Service Corps was formed, and the whole duties of supply and transport handed over to it.

The Army Service Corps deals with all these, other than those of a strictly technical kind, such as Artillery and Royal Flying Corps vehicles, and also remount duties. It is classified into Horse Transport (Nos. 1 to 43) and Mechanical Transport (Nos. 45 to 65) Companies, five Supply Companies (lettered), and four Remount Companies. Each Division has four horse companies, the Army Troops, *i.e.*, troops not belonging to division one. The mechanical transport works on the line of communications delivering ammunition, food, and other supplies to the advanced depôt behind the fighting line, whence the horse transport takes them to troops engaged in fighting. The duties and organization of the Royal Army Medical Corps will be found dealt with in Chapter XIII.

The Army Ordnance Corps has charge of all armament and general stores, other than the rations, fuel, and forage dealt with by the Army Service Corps. It is also concerned with repairs to all classes of articles which it stores, and with the inspection of contractors' deliveries. For purposes of discipline and allotment it is divided into nine companies and a South African detachment, but its real work is in depôts and arsenals of very various sizes and importance.

The Army Veterinary Corps, as its name indicates, provides the horse medical service.

The Army Pay Corps staffs the pay offices of Commands and Regimental Districts. In general the peace work of the pay department is divided between paymasters and cashiers, the former dealing with all pay, allocating and settlement of bills, other than that for very large contracts, which are given out at the War Office itself, the latter, under the paymaster's directions, issuing on "imprest"—that is, advancing money to the officers commanding squadrons, batteries, or companies, who actually, as representatives of the paymaster, pay the men.

Of other "departmental" services it will suffice to mention the Chaplains' Department, and the Judge Advocate-General's Department, which examines and controls, from the legal point of view, the proceedings of courts-martial.

As regards the men of the Regular Army, since that army has evolved without perceptible revolution from the Army of the late 17th and the 18th centuries, and therefore has continued as it began, a thing apart from the body of the nation, the dislike of soldiers and "militarism" was a perfectly natural if unreasonable growth. Many are the tales told that bear witness to this:—The mother whose one idea was to "buy out" her scapegrace son, the parson who desired the prayers of the congregation for the young parishioner who had enlisted, the magistrate who discharged convicted offenders on condition that they would join the Army.

The code of military law itself, though it had been

made by slow successive amendments, perhaps the most humane code of its kind in existence, was originally conceived on the same lines as the civil law of the period. The great Duke of Wellington fought a life-long battle on behalf of flogging as an Army punishment, and one regiment earned the nickname of the "Steelbacks" in Peninsular days by the amount of corporal punishment it endured.

But what was true of the old British Army is not so of the present. Ever since the abolition of "long service" the soldier has been brought more and more into touch with the nation at large, out of which he comes and into which he returns. Modern warfare, too, has no use for the mechanical parade soldier, and the private has no longer to find an outlet for his repressed individuality in truculence off duty. The typical vice of the old Army was drunkenness, the cause of it being the idleness in peace of the finished long-service man of many campaigns, for whom peace training was regarded as unnecessary and almost insulting, and offences of this kind are still marked in red ink on a man's conduct sheets; but the nation, of which the Army is becoming more and more representative, has itself become more sober, and both military training and sport occupy the man's energy and call forth his individual capacities. The combination of these and other causes has made the private of to-day a keen, self-reliant, self-respecting young man. A certain number of such men, of course, always existed, and, on the other hand, the old type of soldier is still found; but whereas

formerly the generality of soldiers were of that type, to-day he is a rarity, and the Army as a whole is made up of as good a lot of young men as any other branch of social life can boast of. It is significant that no less than half the rank and file of the Army to-day wear one or more good conduct badges, each of which stands for a period of at least two years clear of all entries, red or black, in their regimental conduct sheets. And if, as some critics of our Army system assert, the men we now obtain as recruits are ill-developed youths who cannot get a job in civil life at 15s. a week, it must not be forgotten that only a man who has the determination to see himself in barracks will ever get there, through the long series of medical examinations and questionings which must be passed before he is "finally approved." There are no bounties to attract him as of old, no drinks with the recruiting sergeant to manufacture enthusiasm for the red coat, and no perfunctoriness at the medical and military tests. The Regular Army of to-day is a business army of healthy young men whose god is "fitness."

The officers are still drawn from the upper classes, possessed of private means—not as a rule wealth, but certainly an addition to their official income. They are public school men absorbed into and identified with an impalpable regimental atmosphere, the best being the sons and grandsons of officers imbued with the traditions of the Army. But already before the war the dearth of candidates of this, the one accepted type, had made itself felt, and with it had come

proposals for broadening the basis of recruiting the officer corps.

In the old long-service days the idleness of finished training which led the soldier to drink led his officer to take as much leave, indulge in as much sport, and do as little professional study as he could. In those days Wellington's description of the British non-commissioned officer as the "backbone of the Army" was a perfectly true one. With short service, large numbers, and constant war training, however, there is now plenty of work for all officers; a regiment can no longer be run by the adjutant and the sergeant-major, or a company by the colour-sergeant, as was the case in the old days when even captains had no responsibility for the training of their Companies. To-day the officer, like the soldier, must and does throw himself heart and soul into this work.

CHAPTER VII.

OFFICERING OF THE ARMY.

A Transition Period—Woolwich and Sandhurst—Officers Training Corps—Ranks and Badges—Promotion.

THE British officer has recently passed through a period of transition. In the nineteenth century the conditions and traditions of a long-service regimental army produced different types—one standing for the great majority, the other for a small number of individuals, though both were derived from the same classes of society and the same schools. The one type, the regimental officer, was a man whose keenness and energy, finding little outlet in military work in those days, was devoted to sport, travel, or social life, as private means, opportunity, or preference suggested. The other was the man who, in spite of lack of encouragement, worked incessantly, but being a comparative rarity, too often found his labours unproductive of personal advantage, before the South African War gave a great impulse to the instruction of the Army. Within the last few years, however, not only has the practical side of training been intensified in all ranks, real power being given to, and real responsibility

exacted from, all commanders from highest to lowest, but, further, the theoretical study of war has been imposed on all officers instead of being taken up voluntarily by the few. The regimental officer had been trained up to the highest standard, and the staff officer, owing to the separation of command and administration, was in constant touch with the practical side of troop-leading.

In other ways, too, the period between 1902 and 1914 was one of transition. The keen man was finding his opportunity outside the Army, and the lazy man of means had discovered that the Army was too hard-worked, more men of some sort were needed, and openings were demanded for the "ranker," while at the same time the pay, allowances, and standard of living of the officer remained on exactly the same footing as they had been in the old days of leisure and private means. The consequence was that the number of candidates for service in the Army as officers fell off, and was at its lowest before the present war broke out. For the Royal Military College, Sandhurst, the number competing was scarcely more than sufficient to fill the vacancies. The authorities discouraged entrance to the Army from the Special Reserve regiments, with the natural consequence that it was impossible to fill the lower ranks of officers in them.* For the leisured class which furnished officers to the old Militia had completely disappeared. Parents could not afford

* Shortage of subalterns was not confined to the British Army, but was a problem that even the German Army was confronted with. It was, in fact, a sign of the times.



ix.] LORD NAPIER OF MAGDALA. [*Maull & Fox*

to have their sons occupying the increased time required from them under the regulations governing their service in the Special Reserve, and with little prospect of entering the Army from it. If not intended for the service it was a blind alley employment, and few could afford to follow it. Generally it may be said that the increased dearness of living, and the raising of the age of entry made by Lord Haldane, tended to keep out the most valuable class of officer, whose father, grandfather, and often great-grandfather, had served in the Army before him. Bred in the traditions of the service, he was a more valuable man than one without the ancestral advantage. An attempt had been made to remedy this deficiency by the introduction of the Officers Training Corps, to provide subalterns not only for the Territorial Force but also, and in fact principally, for the Special Reserve, and therefore ultimately for the Line itself. It is under the Special Reserve Vote that the O.T.C. is provided for in the Army Estimates. A certain number of commissions are also awarded to candidates from the Canadian and Australian military colleges. From these a large number of partially trained young men have been obtained to fill the cadres required by the mobilization for the present war.

For the officering of the Regular Artillery and Engineers the old Royal Military Academy at Woolwich still meets all needs. These corps can pick and choose their candidates; the scientific education that is essential to their duties attracts the youth whom regimental service with infantry or cavalry does not

offer openings, and competes on equal terms with the business and civil engineering professions. To supplement the lists issuing from Sandhurst, youths have been sent direct to regiments of cavalry and the guards as "second lieutenants on probation." This state of affairs—disquieting enough, since Sandhurst has to cater for more than three-fifths of the Army—led to the issue of fresh regulations in 1911. The main features of these are the introduction of a system of "prize cadetships,"* whereby both the maintenance and living expenses of the cadet are greatly reduced,† and by the grant to headmasters of recognized schools of the power to nominate a cadet; this brings in a certain number of very useful recruits who might fail in a competitive written examination.

A far more important source of supply is the universities. Service in the O.T.C. of their university, with short periods of attachment to line units, secures in the young officers who come from this source a certain military competence on joining their regiments, and marked advantages are offered to the man who has taken his degree with honours. Admission is by competitive examination. The importance of the university candidate is, however, far greater than this bare phrase would indicate. In it, and in a Woolwich and Sandhurst reformed so as to give a university education like West Point, lies, in all probability, the future of the Army. For not only the old universities, but the new

*For many years a few "King's Cadetships" have existed for the sons of officers but these were too few and too restricted in scope to affect the problem.

†Prize cadetships were at the same time introduced for Woolwich.

ones with their wholly modern ideals and kind of undergraduate, contribute to the Army, and their O.T.C. units poured young officers into the service by the thousand in August, 1914.

The constitution of the Officers Training Corps is remarkable. It is a corps almost of the size of an army, split up into large and small "contingents," each drawn from one university or school. The officers are Territorial officers borne on a general list, or regimental officers of Special Reserve or Territorial units "seconded" for service with the corps, and in the "Senior Division" (universities) the establishment of this contingent is so large as to allow and require lieutenant-colonels and majors. Practically, however, it is the administrative side of the work with which these senior officers are chiefly concerned. Each contingent is managed in its own way by a military education board of the university, which, being composed of reasonable men, supports the commanding officer. The technical training is in the hands of company officers under the supervision of a selected Regular captain or major as adjutant. In the "Junior," or school division, everything is on a smaller scale, and the company officer, with the occasional aid of and inspection by a visiting adjutant, has to act as commanding officer and trainer in one.

The cadets of the corps are required to attend drills and camp on somewhat the same terms as Territorial soldiers. They are further expected to enter for "Certificate A," an examination on the barrack square and on paper to test fitness for commissioned rank,

and the best of the men who have taken "A" proceed to "B," which is a field and paper test of no mean order, being, in fact, equivalent to that which has to be passed by Territorial Lieutenants before promotion to Captain. "A" and "B" certificates entitle the cadet, on taking a commission in either the Special Reserve or the Territorial Force, to certain exemptions and advantages. The Training Corps does not itself directly contribute officers to the Regular Army in peace time, but service in its ranks is compulsory for university candidates, and a small credit of marks for membership is given in the competition entrance examinations.

The ranks of officers in the Army, with their badges, are:

General Officers	Field-Marshal ..	Batons crossed within a laurel wreath.
	General	Sword and baton crossed, crown and star.
	Lieutenant-General .	Sword and baton crossed and crown.
	Major-General ..	Sword and baton crossed and star.
	Brigadier-General (is a Colonel temporarily promoted, not a permanent general officer) ..	Sword and baton crossed.
Field Officers	Colonel	Crown and 2 stars.
	Lieutenant-Colonel ..	Crown and star.
	Major	Crown.
Company Officers	Captain	3 stars.
	Lieutenant .. (subalterns)	2 stars.
	2nd Lieutenant (subalterns)	1 star.

As a rule promotion goes regimentally, the senior qualified officer of the next lower grade taking the vacant place. But promotion may be given outside the regiment either by transfer to another regiment or by *brevet* for special services, or *temporarily*, during the holding of a particular office. Both the latter are common, and owing to these various forms of promotion, questions of command and precedence, pay and pension, are very complicated. Into them, therefore, we need not enter. It will suffice to say that permanent rank takes precedence of local and temporary rank, that brevet rank counts only outside the regiment. Regular officers take command and precedence over Special Reserve, and the latter over Territorial officers of their own rank.

When with his regiment an officer may apply, or be ordered, to attend schools on special subjects, such as the School of Musketry, Hythe; the School of Gunnery, Shoeburyness and Lydd; the School of Signalling, Bulford or Aldershot; the Cavalry School, Netheravon; &c., &c., varying with the arm to which he belongs.

For entrance to the Staff College, Camberley, which is open to the majors, captains, and senior subalterns of the Army, and provides staff officers for the whole Army,* competition is as keen as competition can well be. The regimental certificates that candidates must produce are of the highest standard, the examination most searching, and the curriculum, both of higher

* The Indian Staff College at Quetta contributes a share, and is conducted on the same lines as the mother-college at Camberley.

military study and of working experience of business on a large scale, thorough. Perhaps the most remarkable result of modern changes is the spreading of general staff ideas and influence throughout the Army. Another remarkable innovation of recent years is an officers' course in business and administration at the London School of Economics.

Officers for the Indian Native Army are obtained partly by transfers from the British Army and partly by direct appointment from Sandhurst or the Universities. Officers for the corps maintained in East and West Africa by the Colonial Office are "seconded"—that is although kept on their own regimental lists are not counted as part of it—from British regiments, or occasionally from the Special Reserve.

CHAPTER VIII.

FORCES OF THE DOMINIONS AND INDIA.

THE IMPERIAL GENERAL STAFF—CANADIAN ARMY—AUSTRALIAN ARMY—SOUTH AFRICAN ARMY—ARMY IN INDIA—MEN OF THE NATIVE INDIAN ARMY—ORGANIZATION AND CONSTITUTION.

THE Forces of the Dominions beyond the seas were organized mainly for home defence, but some years before the war of 1914 a scheme had been in progress to bring them into closer touch with the Mother Country. It was decided at the Imperial Conference of 1909 that the troops of the Dominions oversea should be organized and trained on the lines followed by the British Army, so that smooth cooperation in any part of the Empire could be secured with all possible dispatch when necessary. An important step followed in the forming of a Dominions Section of the Imperial General Staff in the spring of 1912. The Dominions officers attached to the section are enabled both to study our methods of training and organization and to keep the Staff informed of any changes which may take place in their own

countries. There is also an intention to establish Staff Colleges, on the pattern of those at Camberley and Quetta, in all states of the Empire, and this project, when achieved, will be of the utmost value in assimilating the system of military education of the oversea forces to that of the British Army.

German statesmen, who had counted confidently on the disintegration of the British Empire in the hour of crisis, left out of their calculations the factor of loyalty. It was, however, precisely this one factor which was strong enough to dominate all minor grievances and jealousies, and to prove more convincingly than ever the solidarity of the bond uniting England and her Colonies. Not only did the men volunteer in their thousands, but the people sent, as practical proof of their sympathy, the most generous gifts in money and kind for the comfort of our troops and the relief of the wounded.

Canada.—Canada's army is recruited voluntarily, though in theory "all males between the ages of 18 and 60 are liable for service in time of emergency," according to the Canadian Militia Act of 1904. Compulsion has, however, never been used. The army is administered by a Militia Council, at the head of which is the Minister of Militia and Defence. It consists of a small regular force called the Permanent Militia, which has an establishment of 3,000 men and is in training all the year round, and an Active Militia with a nominal strength of 48,000, which receives from 12 to 16 days' annual training. The two forces are organized together as 5 cavalry, 10 field artillery, and 20 infantry brigades.

Eastern Canada is subdivided into six divisional areas, each of which has a division of all arms. Western Canada has three military districts.

In addition to these main forces, in both of which men are enlisted for three years, there are 12 divisions of the Royal N.W. Mounted Police, whose term of engagement is five years. These are administered by a Controller at Ottawa. The cadet system is also very popular, supplying about 20,000 boys (12 to 18), while there are a number of Rifle Associations whose members are prepared to serve in the militia should occasion arise. The Military College at Kingston is excellently organized and will probably develop a branch as a staff college on the lines proposed by the Imperial General Staff.

Both Sir John French and Sir Ian Hamilton, in reply to invitations to report on the Canadian Army, recommended a higher standard in numbers and in organization. Great efforts have since been made to achieve this. The war-strength now aimed at is 100,000 rank and file and 100,000 second-line troops, with a complement of 5,000 officers.

Australian Commonwealth.—Lord Kitchener was called in to advise the Commonwealth on the system it should adopt for its military defence. On his recommendation the country was divided for military purposes into 93 battalion areas, four of which form a brigade group under an officer, who in war time would receive the title of brigadier. In 1909 and 1910 Defence Acts were passed in Australia for the introduction of

compulsory service, and all able-bodied males between the ages of 18 and 26 are now compelled to serve in the Citizen Defence Force. To prepare them for service in the force boys are enrolled successively in the Junior Cadet Corps (12 to 14) and the Senior Cadet Corps (14 to 18). In a country where the population is sparsely distributed over vast areas the administration of the Acts naturally proved difficult. Prosecutions, fines, and penalties were at first frequent, and the most thinly-populated districts have had to be exempted from service for the present. The total strength of the force is eventually to be 155,000 men. There is a small permanent force and a permanent Administrative and Instructional Staff. The forces are organized as a field force (of militia), garrison troops (permanent and militia), and the militia. There are 93 infantry battalions, 28 regiments of light horse, 56 field batteries and 13 garrison artillery companies with the usual complement of engineers, signallers and departmental troops. In August, 1909, the Commonwealth Section was added to the Imperial General Staff. A Royal Military College has also been established at Duntroon, N.S.W.

New Zealand also, after Lord Kitchener's visit to the country in 1910, adopted the principle of compulsory training in 1909, and in 1910 the New Zealand Section of the Imperial General Staff was organized. Furthermore it bore fruit in a higher standard of training and the adoption of the Australian system of organization. All males between the ages of 17 and 55 are liable for

service, and between the ages of 18 and 30 training is compulsory. The numbers aimed at are a Territorial Force of 30,000 and a senior cadet force of 45,000. Rifle clubs have also been established both here and in Australia.

South Africa.—In South Africa, although the liability to serve is imposed upon all males up to the age of 60 under the Defence Act of 1912, there is no desire to make military service universal. An adequate system of national defence is all that is required, and so far the numbers have been obtained by voluntary enlistment. The Active Citizen Force has a nominal strength of 20,000 to 25,000 men, the training age being fixed between the years of 21 and 25. It consists of a Coast Garrison Force and the Active Citizen Force itself. As in Australia and New Zealand, the country is formed into "areas" for military purposes. Those men who do not train in the Active Citizen Force are enrolled in rifle clubs. The cadet system is also in force, though less extensively organized than in Australia. An important result of the Act referred to above was the establishment of a permanent force of mounted riflemen (five regiments), to which five field batteries are attached.

India.—The Indian Army, properly so-called, includes only the native troops. The Army in India is, however, a name of wider significance. It includes British Regular Forces and Volunteers, Indian Regular Forces, Imperial Service Troops, Military Police, and a number of local corps. The Commander-in-Chief is that member

of the Viceroy's Council who is in charge of the Army department. The total strength of the Army in India is 352,700 and the average military expenditure about 19½ millions annually.

The organization in India is divided between the Military Operations Directorate, which has its Strategical, Organization and Intelligence Sections, and the Staff Duties and Training Directorate, which is again subdivided into General Staff, Co-ordination and Training Sections. The task of administering the Army in India is made peculiarly difficult by the constant danger of frontier raids with which the Army must be prepared to deal at any moment. The Army is, in fact, kept practically on a war footing although in late years some small efforts have been made to establish regimental reserves on the British plan. The climate is, of course, also a factor to be reckoned with. Training is liable to be interrupted by the rains or other disturbances, and an extra amount of work has accordingly to be put into the few months that are favourable. Such prosaic details as the moving of troops and their feeding and quartering are complicated by the variety of castes among the natives and the variety of animals used for transport. An infinity of tact is also incumbent on all officers in their dealings with native rulers and Princes.

In the native Indian Army there is, as has been abundantly proved, fighting material of the first order. Warriors by tradition and descent, these soldiers become docile and unwaveringly loyal by judicious training.

First and foremost come the tall, bearded Sikhs, who by reason of their numbers and their fine fighting qualities, hold the highest position among the native troops. It is said that the Sikhs will fight against any odds with a degree of firmness that can hardly be surpassed. They are not a separate race, but a religious sect, raised among the people of the Punjab. The faith into which they are admitted on reaching manhood is essentially a spiritual creed. The Punjabi Musulmans, who come next to the Sikhs in numbers, have also many excellent qualities, not the least of which is their adaptability when set down in strange surroundings. The third, and in many ways the most popular, fighting element of our native Army is the little Gurkha, whose simple, friendly manners and dogged tenacity in the field have endeared him to all Englishmen. Perhaps it is because his courage assumes such large proportions in comparison with his small stature that he is singled out for universal popularity. The fierce, fanatical Pathans, the high-caste Brahmans, Rajputs, Mahrattas, and Dogras, the Baluchis and the Madrasi sepoys, are other well-known elements in this strange mixture of ancient races and creeds which forms so important a feature in our Empire.

After the Indian Mutiny the forces in India had to be entirely reorganized. That portion of the Army which had until then been maintained by the East India Company was transferred to the Crown, and it was decided that the European forces in India should be greatly enlarged. It was further recommended by a

One of the happiest schemes in connexion with the Army in India was the formation of the Imperial Service Troops during Lord Dufferin's Viceroyalty. These are trained by Feudatory Princes acting under the inspection of British officers. Forces consisting of cavalry, infantry, sappers, camel and transport corps are in this way maintained by thirteen of the states under the wise and enthusiastic leadership of their reigning Princes.

The Northern Army and the Southern Army of India form the two commands. The men are enlisted for three years for general service, but the majority of them stay longer and become soldiers by profession.

When Lord Kitchener took over the command in India in 1902 many reforms were introduced. His most drastic measure was, perhaps, the abolition of the Military Member of the Viceroy's Council, who shared with the Commander-in-Chief the control of the Army, and was apt to act in antagonism to him. A member of the Council in charge of the military supply department was installed in his place, only to be suppressed in his turn by Lord Morley in 1909. The control was thus allowed to devolve wholly upon the Commander-in-Chief.

Further, the redistribution of the Army by Lord Kitchener was found to entail a great increase in the number of trained Staff officers. It was therefore realized that the long-recognized need for a Staff College in India had become all at once a pressing one, and in 1905 it was established at Quetta. While the





[x.] LORD WOLSELEY. [*Elliott & Fry*

necessary buildings were being erected a temporary home for the students and the staff was found at Deolali. The new college at Quetta was opened on June 1, 1907, by General Smith-Dorrien, then in command of the 4th Division, with his headquarters at Quetta. It is in many respects admirably situated. The climate is cool, the ground being 6,000 feet above sea-level. The syllabus of training conforms almost exactly to that carried out at Camberley, and the two colleges are kept in close touch by means of correspondence. The accommodation is, unfortunately, far too small. Many officers from the Dominions have applied for admission and been refused on this score, and the number of officers taking the one-year course of training has likewise been restricted.

CHAPTER IX.

INFANTRY AT WORK.

ORGANIZATION OF THE BATTALION—WAR ESTABLISHMENT—MARCHING EQUIPMENT—ARMS—SUPERIORITY OF BRITISH MUSKETRY—ACCURACY AND RAPIDITY OF FIRE—STAGES OF INFANTRY ATTACK.

IN Continental armies the unit of infantry is the regiment of three to four battalions. With us, however, the regiment is a unit that has little or nothing to do with war organization, since on principle one battalion of it is abroad when the other is at home, and a brigade consists not of two three-battalion regiments as in other countries, but of four self-contained battalions belonging to four different regiments. As, however, the British division has three brigades to the French or German two, the total of infantry battalions in the division is the same in all these armies.

We may begin, therefore, by dealing with the battalion. It consists of a headquarters (that is, the battalion staff, the machine gun section, the signallers, the pioneers, and the bandsmen turned stretcher-bearers) and four companies. Each of the latter has a major or captain as company commander, with a

captain second in command, and four "platoons"—under subalterns, each of whom has a sergeant as second. The platoon is divided into four sections under junior sergeants, corporals, or lance-corporals. Companies are lettered A, B, C, D, and platoons and sections are numbered consecutively through the battalion. The second in command has no definite duties on parade, but is usually in charge of "administration." The company sergeant-major assists the commander, and the company quartermaster-sergeant the second in command. Two pack animals for ammunition form part of the company. The company commander is mounted. The strength of the company is 227 all ranks.

The machine gun section, under a subaltern, has two guns, which have tripod mountings. On the march these guns, their tripods, and their ammunition are carried in a limber wagon drawn by two horses. There are 3,500 rounds for each gun, and a reserve of 8,000 rounds is carried in one of the small-arms ammunition carts, which are allotted to the M.G. section. Besides this amount, 10,000 rounds are in the brigade and division ammunition columns. When entering the dangerous zone, the guns, tripods, and ammunition are unpacked, the guns and tripods being then carried forward by hand, and the ammunition on the backs of the two draught horses of the limbered wagon (which carry pack saddles for the purpose). The section numbers 18 all ranks.

The signallers, for visual signalling between the companies and headquarters, and also between

headquarters and the brigade staff if necessary, number 17, including the sergeant in charge. The regimental sergeant-major, the regimental quartermaster-sergeant, the pioneers (who may be called the odd-job men of the battalion), the stretcher-bearers who in times of peace were the bandsmen,* and the various employed men (medical orderlies, shoemaker, sergeant-cook, &c.) complete the headquarters total of 81—this figure including the lieutenant-colonel in command, the major second in command, the adjutant, the quartermaster, and the medical officer. The duties of the major second in command, like those of the second captain of a company, are not very definite. Perhaps his most important function is that of "P.R.I." (President of Regimental Institutes); in this capacity he supervises the canteen, the messing accounts, and many other things.

The total war establishment of the battalion is thus :—

	Officers	Warrant and N.C.O.'s	Other Ranks	Horses	Heavy Draught Horses
Headquarters	5	10	66	31	—
M.G. Section ..	1	1	16	5	—
4 Companies ..	24	40	844	12	8
Total ..	30	51	926	48	8

There are also 16 vehicles and nine bicycles for signallers.

*The drums and bugles, though massed as a band when the battalion is altogether, go with their companies in action and are used as orderlies.

The infantryman has to march and fight with what he carries; nothing but a waterproof ground-sheet per man is carried for him in the baggage. All the rest—great-coat, spare kit, water, reserve food, and part of the current ration, as well as arms, ammunition, and entrenching implement—are on the man. Tool wagons carry a supply of full-sized tools. The weight of the whole equipment, which is superior to that of any other foot soldier, including 150 rounds of ammunition and reserve ration, is about 60lb. These weights in each case include the rifle, the bayonet, and the man's clothing. In the battalion small-arm ammunition carts 100 reserve rounds are carried, and 50 rounds in the brigade and the same in the divisional ammunition column. The legends that have gained currency during the War as to the infantryman's load of 80, 90, and even 100 odd pounds, are hard to believe. Even additional rations and ammunition on the man would not bring up the total to the figures stated. Nor could any known infantry carry such weights.

The officers when in Service Dress wear the historic Sam Browne equipment in brown leather, and are armed with sword and automatic pistol. They carry haversack and water-bottle like the men, and also field glasses, compass, wire cutter, &c. Many officers carry the great-coat in a sling on their backs.

The arm of the infantryman is the "short Lee-Enfield rifle"—a bolt-action charger-loading magazine weapon weighing 8lb. 10½oz., with magazine empty. The total length of the rifle with bayonet is 5ft. 2in.

Recently, pointed bullets somewhat similar to those used by France, Germany, and other nations have been introduced so as to obtain a higher velocity and flatter path of the bullet at the shorter ranges than was possible with the old round-nosed bullet. The British weapon is the only short rifle now in the field. Its characteristics are great handiness for snap-shooting and rapid fire without fatigue.

Here reference may be made to the extraordinary superiority of British musketry over that of all other nations in the field. While on the Continent the training of conscripts is carried out in the briefest time thought to be possible for the production of an efficient soldier, we in Great Britain, with longer service, have devoted ourselves to the production of shots who can make at least three hits to the enemy's two. The recruit is taught in the first instance accurate aiming to a standard almost unknown on the Continent. He is expected to put every shot into an 8in. ring at 100 yards. Even in the Territorial Force, where musketry training is far more hurried, the lowest qualifying standard is 80 per cent. of shots in a 12in. ring, whereas in France a recruit is passed into his company if he can put 50 per cent. of shots in an 18in. ring at that range. All this, however, is simply the essential foundation for rapid fire, which without it would be mere waste of ammunition. It is rapid fire, delivered in sudden powerful bursts, with intervals of complete silence, that is the characteristic fighting method of British

infantry, the unit which delivers the burst being usually the section of 12 to 14 rifles, but sometimes the platoon of 50 to 55 rifles. It is safe to say that our rapid fire when it displayed its powers for the first time at Mons astonished Europe as thoroughly as Frederick the Great's volleys astonished the Europe of 1740, or Wellington's the Europe of Napoleon. The essence of our infantry tactics (which in this, as in most other ways, tend to agree with the French rather than the German) is the principle that fire assists movement, whereas the Germans seek to establish a thick firing line at the outset, and to transport the fire of this line nearer and nearer until it is absolutely crushing, the function assigned to the bayonet being only that of "cashing the cheque drawn by fire-power," as their writers put it. The French and ourselves seek by means of manœuvre and fire combined to advance as near the hostile position as possible, using momentary bursts of intense fire to facilitate the approach to bayonet-charge distance.

The infantry attack itself has been classed by Brigadier-General R. C. B. Haking in six stages. The first is the approach march, possibly, and in its later stages certainly, under artillery fire. The second is a difficult and dangerous phase, the first few hundred yards of the advance proper, under accurate artillery and more or less effective infantry fire from the position to be attacked. The third is the fight at easy range and in a good fire position for fire superiority, as the necessary preliminary for further advance. The fourth is the act

of pushing in to assaulting distance every step gained by fire power. The fifth is the assault itself, the bayonet charge, and the sixth is the rally on the captured position. Under modern conditions the infantry needs more than ever the assistance of its sister arm, the artillery, to prepare the way for the attack or on the defensive unite in overwhelming the assailants at ranges beyond that of the rifle.

CHAPTER X.

CAVALRY AT WORK.

ORGANIZATION—USE IN WARFARE—MOUNTED ATTACK—DISMOUNTED ACTION—RECONNAISSANCE—PROTECTION—PURSUIT.

OUR cavalry is organized in regiments, each consisting of regimental headquarters, 3 squadrons, and a machine-gun section. Each cavalry squadron is sub-divided into 4 troops, each troop being under a subaltern, and for tactical purposes the strength of a troop may be assumed to be about 32 sabres.

The war strength of a cavalry regiment is approximately 550 all ranks (including 26 officers), with 600 horses.

The men are armed with a sword and rifle, and some regiments carry a lance also. Each regiment takes the field complete with its first line transport, in which is carried all that the regiment requires in an engagement with the enemy. Purely cavalry organizations in our service are cavalry regiments, cavalry brigades, and cavalry divisions. The first line transport of a cavalry regiment is made up as follows. It may be explained that "G.S." stands for General Service

and implies that the pattern of vehicle is not one specially fitted for the technical service of one arm or another, but is available for all uses.

Under Regimental Headquarters	3 bicycles for intercommunication; 1 Maltese cart for the medical stores; 1 water cart; 1 wagon, limbered G.S., for raft equipment; 1 wagon, limbered G.S., for cooks; 1 wagon, G.S. for baggage; and 5 other bicycles.
Under Machine Gun Officer	4 wagons, limbered G.S., for 2 machine guns, tripods, ammunition, etc.
Under the 3 Squadron Commanders	3 wagons, limbered G.S., for ammunition; 3 wagons, limbered G.S., for tools; 3 wagons, G.S., for baggage; 12 bicycles for intercommunication; 6 pack horses for scouts; 6 spare draught horses

Each man carries on him 100 rounds of ammunition, and in regimental reserves another 100 rounds per rifle are carried. With each machine gun there are 3,500 rounds, and 16,000 extra are carried regimentally for each machine gun. In the ammunition columns the immediate source of further supply of 100 rounds per man and 10,000 per machine gun. Also each man

carries an "iron ration" for use in case of emergency; and a full day's field ration, together with the unexpended portion of the previous day's ration, are carried partly in the cooks' wagon and in the men's haversacks.

Thus, considering what each man has on him, it is not surprising to learn that the weight carried by each cavalry horse in the field is approximately 18 stone, made up as follows :—

Rider (say)	10½ stone
Clothing, "necessaries," and accoutrements	2 ,,
Arms and Ammunition ..	1½ ,,
Rations and Water	½ ,,
Saddlery, etc.	3½ ,,
	18 stone

We can now turn to the use of cavalry in warfare. In our service the cavalry is organized for war in higher formations, such as the cavalry brigade (brigade headquarters, 3 cavalry regiments, and 1 signal troop); and the cavalry division (divisional headquarters, 4 cavalry brigades, and cavalry divisional troops, comprising 2 horse artillery brigades with 4 batteries, or 24 guns, 1 field squadron and 1 signal squadron of engineers, and 4 cavalry field ambulances). Thus a cavalry division is a complete fighting unit, and capable of independent work in the field. Its strength is approximately 9,500 all ranks (including 500 officers), with 10,000 horses. The vehicles accompanying a cavalry division number nearly 600, and include 24 guns, 24 machine guns, 23 motor cars, 18 motor cycles, and 371 bicycles. But in

all probability the fact that, when marching along a road, a cavalry division will occupy a depth of 11½ miles will give a better idea of its size than the figures that have been quoted. The depth of a single cavalry regiment in column of route on a road is 1,050 yards, while a cavalry brigade will occupy 1⅞ mile.

Although our cavalry is armed with a rifle, yet in no sense of the word is it mounted infantry. Its ideal and its rôle are far more exalted. It is probably no exaggeration to say that it looks on the horse as its principal means of overcoming the enemy; either to transport the men to a position where they can employ their firearms, if the ground and circumstances demand dismounted action; or to allow them to ride home against the foe, lance or sabre in hand, if the situation favours shock-action. Thus our cavalrymen are real dragoons, equally proficient on horseback or on foot.

There is no doubt that being armed with the rifle has made cavalry far more independent than heretofore, and many more situations occur for use of dismounted action in war than arise for the employment of shock-action; but a mounted attack under a bold, resourceful, dashing leader will produce a quicker and more decisive result than will accrue from the most skilful use made of the rifle; also attacks by cavalry may often be a just and correct combination of these two methods, and in these combined attacks the greatest chance of success will often be discovered.

In mounted action a brief but comprehensive preparatory reconnaissance, both of the ground and of

the foe, must be made by patrols and also by the cavalry leader before the horsemen are launched to the assault; as far as possible the attack should come as a surprise, and when delivered everything should be done to ensure striking the enemy an irresistible blow, and, if possible, to deliver it against a flank. The plan of attack must be simple, and capable of quick modification to meet any altered change of situation; part of the force being retained in hand to act as a reserve, and to be available to meet any unforseen contingency. The actual charge itself will be given in line, at full speed, with the men closed up, the clear determination being to ride the enemy down. If the charge is successful, the enemy is pursued relentlessly and kept on the run.

Meanwhile, in the few brief moments available, the artillery and the machine guns attached to the cavalry have done their utmost by their fire to prepare the way for their horsemen; consequently they have avoided an artillery duel, and have concentrated their fire on the body of troops that is to be charged, with the idea of breaking their formation, throwing them into confusion, engaging their attention, and preparing them for a decision-compelling stroke.

In dismounted action, as far as possible, the cavalry will employ its mobility in order to make good any lack of fire power*; consequently surprise, rapidity, and boldness of action are important factors in a cavalry fire

* This lack is due to the necessity of detaching a proportion of men to hold the horses, while the rest fight with the rifle. For the same number of men, therefore, cavalry can never put into action so many rifles as infantry.

fight. Rarely would cavalry engage in long advances on foot, or in long-drawn-out fire fights after the manner employed by infantry; rather the cavalry will move up mounted to the nearest possible fire position to the enemy, and then it will dismount as many rifles as possible, it will open fire together, and it will rely on rapid bursts and concentration of fire, so as to obtain the greatest result at the earliest moment; and advances will be made by portions of the force galloping from one fire position to another, covered by the heaviest possible fire from all the other dismounted men. Here, as in all our tactical procedure, the guiding principle is that covering fire is used to facilitate movement, and to enable the cavalry to work forward and outflank the enemy; and rightly the cavalry relies on its superior mobility to make up for any deficiencies in its use of the rifle.

But naturally the chief value is obtained from cavalry only when it is acting in conjunction with the other arms. For without cavalry the other arms are hampered by ignorance of the enemy's dispositions, nor can they move in security. Consequently, the first cooperative duty that falls on cavalry is the service of intelligence, and the cavalry arm is also partly responsible for the service of protection.

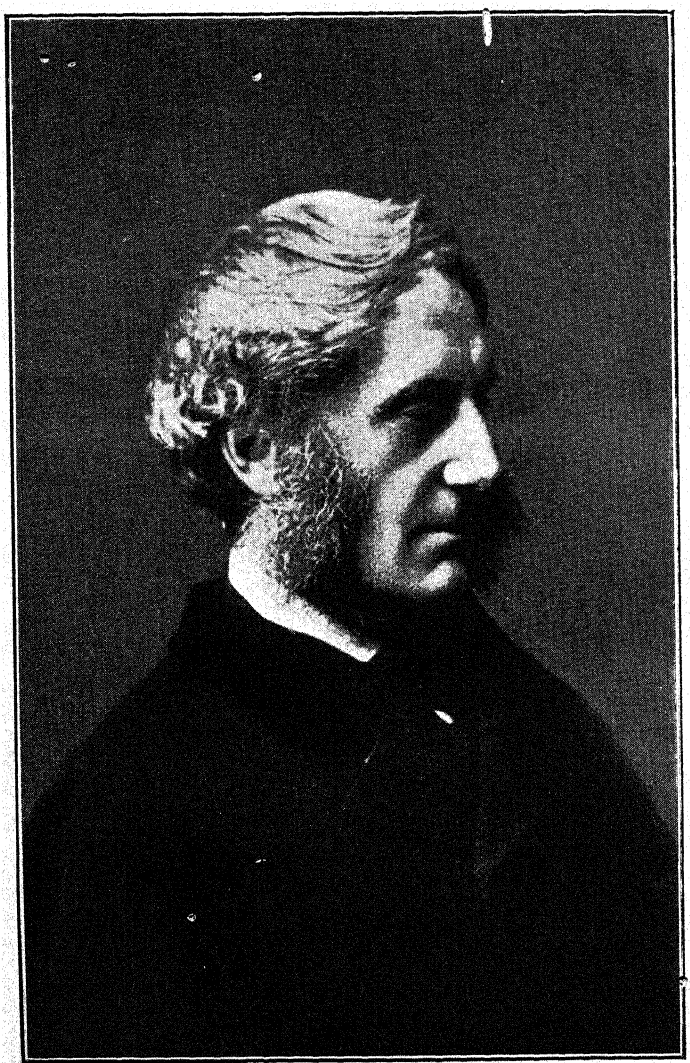
It must not be supposed that air-craft have entirely superseded the cavalry arm in reconnaissance work, for naturally air-craft can accomplish little, either in a very close or woody country, or in fog, mist, or darkness. Though they may be able to scout on any day, yet air-craft may not be able to do so at any given hour

in that day; consequently cavalry is as valuable as heretofore, and by developing the outline of the hostile grouping, while carrying out its ground reconnaissance, the cavalry will supplement the information obtained from the aerial reconnaissance. To-day information that is obtained by mere reconnaissance is apt to be very vague, and as firearms improve it becomes more and more so; distant and unseen rifle-fire keep the cavalry scouts at a distance, and left to themselves they can learn nothing. Therefore, to assist the cavalry in this work, all arms have to engage in order to drive in the enemy's screen, force him to develop strength and disclose his dispositions; and thus, in conjunction with the information obtained by a simultaneous aerial reconnaissance, gain the knowledge necessary for a commander to possess before he can form his plan of action for engaging the enemy. Therefore hard fighting is required nowadays to wring the requisite information from the enemy, which cavalry alone was able to obtain in the days of smooth-bore weapons and black powder. Consequently it is obvious that the bond between the work of the cavalry and that of the other arms is even closer to-day than it was in the past.

Also this reconnaissance serves a double purpose, for naturally it tends to cover and conceal our own dispositions; thus it keeps the enemy in the dark, mystifies him, and makes it possible to forestall him and to surprise him.

When the battle takes place the cavalry safeguards and covers the flanks, while some of the horsemen

will be held in reserve. It is now available to act as a mobile reserve of riflemen in case of need, or to be used for shock-action, should the opportunity present itself; but a commander will be chary of employing his horsemen during a battle, unless by their employment he can influence the actual decision of the battle, and, by overwhelming a portion of the enemy's line with a furious cavalry onslaught, give to his infantry the chance to take immediate advantage of the cavalry action, to fasten with an iron grip on the enemy's position, and to turn a temporary success into a permanent advantage. Otherwise the cavalry will be kept in hand to exploit the victory when it is gained by opening an immediate and relentless pursuit, directly the enemy leaves the field intent on saving what still may be saved. This is pre-eminently the time for cavalry action. The retiring enemy must be kept on the run and prevented from rallying, while strong bodies of horsemen, accompanied by horse artillery, work round the hostile flanks, intercept the line of retreat at some defile, and then hold the retiring troops at bay until the slower moving infantry closes and completes their capture. In this way, by the bold and correct use of cavalry, a mere victory may be converted into a great triumph. The cavalry arm alone can cut the red harvest of victory with a scythe, for infantry by itself can only reap it with a sickle.



xi.] VISCOUNT CARDWELL. [*Elliott & Fry*

Secretary of State for War, 1869-1874. Author of the "Cardwell System."

CHAPTER XI.

WORK AND WEAPONS OF FIELD ARTILLERY.

FUNCTIONS OF ARTILLERY—THE ARTILLERY DUEL—CASE-SHOT—SHRAPNEL AND TIME FUSE—THE FAMOUS FRENCH 75MM. GUN—QUICK-FIRERS—RANGE-FINDING—FIELD HOWITZER—HEAVY FIELD GUN—MOUNTAIN ARTILLERY.

TO help the infantry to maintain its mobility and offensive power by all the means at its disposal should be the underlying principle of all artillery tactics. The primary objects of artillery fire should therefore be to assist the movements of its own infantry and to prevent the movements of the enemy's infantry. The principles thus expressed by our Field Artillery Training Manual apply to every phase of the battle. Thus, in the advanced guard action, the battery or batteries on the spot would be used to give an increment of fire power to the advanced guard infantry when checked, or to enable it to hold ground gained against a hostile advance. During the deployment of the infantry of the main body this rôle continues. When the infantry begins to cross the "artillery zone," the task of friendly batteries will

usually be to discover, by aircraft or ground observers, the position of the enemy's batteries, and to engage them and absorb their attention.

Much controversy (with the French and the Germans, as always, on opposite sides) has raged around the so-called artillery duel. In the days before the quick-firer and the time shrapnel, it was essential thoroughly to master the enemy's guns before the infantry were committed to the attack. But in these days the effect sought is rather to neutralize the enemy's guns by smothering them whenever they show signs of activity. All artillery duelling, therefore, is only a means to an end, entered into by each side for the protection of its own infantry's movements and the future prevention of its enemy's. If the artillery duel does occur, it will take the form of spasmodic outbursts, each of which is suppressed more or less promptly by the other party, the suppression being swifter and sharper and the revolt weaker every time. An ascendancy of one side is thus reached which may be called artillery superiority, as of old, though it has no intrinsic but only relative value, measured by the ease of the infantry's advance while the "duel" is progressing.

In the next phase of the infantry attack, and hence to the end, the rôle of the artillery is to support the advance by covering fire. Whether it be to bombard some locality which the infantry has made its objective, or to neutralize some hostile battery elsewhere that is impeding the infantry's progress toward that objective, or to crush a counter-attack which is launched upon

it before or after it has occupied the prize, the artillery's duty is clear and hard—to carry out the principles in the book.

If it has carried them out, the chances are three to two that the infantry will reach in good or at least in fair condition the line from which its bayonet charge is to be delivered. From that moment the artillery fire, hitherto more or less distributed over several targets for their neutralization, gathers itself together more and more until at the moment of the charge every gun that will bear is sweeping the front or flanks of the point assaulted with the intense shrapnel storm that reproduces the case-shot attack of former days. As the infantry closes with the foe, the guns must cease their direct aid for fear of killing their own side, but a slight switch throws the sheaf of their projectiles to right, to left, and over, in the hope of preventing the doomed position from being recovered by counter-attack from the flanks or the interior of the enemy's position. Meantime, a few batteries have been dribbled forward, as opportunity offered, not only for the close support of the assault, but also in order to crown the captured position with guns before any counter-attack is launched upon the infantry that has stormed it.

No arm of the service has been so completely revolutionized in the last generation as artillery. It is not simply that bigger guns or more accurate guns have been produced; what has altered is the whole outlook of the gunner. When Napoleon began to use field artillery in large masses his object was to assist the

infantry attack by sending on his batteries to such a range that they were able to use the blasting case-shot without suffering much from the fire of the infantry upon whom it was directed. On many occasions this method was successful, notably at Friedland and at Wagram.

These tactics, however, were rendered impossible when the longer-ranging rifle became the armament of the infantry, owing to the batteries being no longer able to drive up to case-shot range (say 600-400 yards) before unlimbering. For many years afterwards artillery was reduced almost to impotence as regards support of the infantry attack, because its longer ranging projectiles (shell and solid shot) produced only local effects. There was nothing to replace the terrible bullet-shower of case until the old English invention of shrapnel could be adapted to rifled guns. In essentials the shrapnel was, and is, a shell containing bullets which is burst in the air by a time-fuse, sufficiently short of the target for the bullets to spread out in a cone. Formerly this time-fuse could be set in action by the flame of the gun, since the projectile was only a loose fit in the bore. But when rifling was introduced, and the shell was made to fit in the bore tightly enough to take a spin from the spiral grooving, this became impossible, and it was necessary to use a time-fuse that could be set in action by the shock of discharge and yet was safe in a jolting ammunition wagon. In the solution of this problem England, the ancestral home of the shrapnel, naturally took a leading part, and even

the breech-loading 15-pounder of the South African War succeeded in supporting the infantry's advance by a deluge of shrapnel fired over their heads from guns, far in rear.

This gun, however, which was on a simple wheeled carriage, ran back at every discharge, and had therefore to be relayed at every round. No great rapidity of fire was possible from it, and it was not until the true quick-firer came into being that a constant rapid rain of shrapnel bullets could be delivered with mathematical certainty upon the point to be stormed. Even before the South African War France had produced such a weapon in her still wonderful 75-mm. gun; and not only so, but had foreseen and grasped the tactical possibilities that her gun opened up. From that time to this the French artillery has set the pace to the rest of the world, and the present war has shown that it still maintains its lead. The last Power to admit that a revolution had come was Germany, who unluckily for herself, had rearmed her whole Army with what she thought the best breechloader only a year before the French gun came before the world. After years of denying the undeniable and struggling against the inevitable, she ruefully cut her losses by converting her breechloader into an inferior quickfirer, and accepting the new tactical ideals of the arm. Indeed, but for the new heavy howitzers, of which so much has been heard, her inferiority in artillery would have been marked.

The essence of the quickfirer is the interposition of slides and a buffer between the gun and its carriage,

which enable the latter to be firmly anchored to the ground by dragshoes on the wheels and a spade on the end of the trail, while the gun recoils smoothly along its slides, against the cushion-like resistance of its buffer. Combined with the buffer is a series of strong-coiled springs, or, better still (as in the beautiful 75mm. gun), a compressed-air chamber, by which energy is stored up in the recoil to raise the gun up to the firing position after the recoil. Into all the technical consequences of this it is not necessary to enter. It is sufficient to point out (1) that the smooth recoil makes the shooting from a quick-firer far more accurate than it ever was from the recoiling breechloader, because it remains fixed after firing; (2) that since there is no run-back of the carriage, a shield can be fitted between the wheels to cover the men behind the gun; (3) that the rapidity of fire is practically the rapidity of aiming, which is at a maximum, because the sights can be fixed to the anchored carriage instead of to the recoiling gun; (4) that the anchored carriage, and therefore the sights, throughout the firing make a fixed angle with a distant observer, from which it follows that the guns may be, and, in fact, almost always are, behind a hill, only the observer and his staff being on the crest to direct the fire on one target after another by computing and ordering angular changes.

In brief, a rapid accurate shrapnel fire from distant concealed positions reproduces with its shells the case-shot effects which Napoleon's artillery had to obtain by galloping in to close ranges.

This result has, however, been paid for, at least in part, by three troubles from which Napoleon's gunners did not suffer—difficulty of finding the range, difficulties due to the difference of height between gun and target (angle of sight), and difficulties in distinguishing friend and foe at the moment when accurate fire is of supreme importance—viz., at the moment of the infantry assault. As to ranging, no two guns shoot exactly alike, and no two fuses burn exactly at the same rate, even in the same weather conditions. A process, therefore, has to be gone through which, however simplified, still remains the greatest handicap to this arm. The range as found by instruments is only a rough guide to the gun-range and the length of fuse, and the former has to be found by observing the smoke of bursts so low as to obscure the target if shorter and to show behind it if over, the target being thus bracketed between a short and a long bracket of some 300yds., reduced during the firing by closer approximation to 100. These bursts were formerly obtained by using a percussion fuse, which detonated the shell on impact with the ground, but now it is customary to employ time shrapnel with a very long fuse, and to correct this length afterwards so as to obtain the best height of burst for effect. The quickfirer has, however, a great advantage over its predecessor in this matter, in that an intermediate carriage is interposed (though not in the German gun) between the gun-cradle and the fixed carriage; the angle between this intermediate carriage and the fixed carriage is set to the angle of sight, while the elevation-angle for the range

is obtained by moving the gun-cradle with reference to the intermediate carriage. These operations are carried out simultaneously by two men who turn the two screws.

As to the last and perhaps the most serious difficulty, that of distinguishing friend from foe at the critical moment, there is no remedy but a complete system of communication between guns and assaulting infantry. How this communication is effected is a matter that must vary with circumstances.

The field howitzer has been introduced for the purpose of coping with targets which the long, flat sweep of field gun shrapnel could not touch, viz., troops sheltered behind trenches or other cover. It is true that if field gun shrapnel could keep the enemy's heads down so completely that they dared not look over the cover to aim and fire its work on behalf of the attacking infantry would be well done indeed. Hence the paradox that a small precentage of wounds due to shrapnel is sometimes evidence of the thoroughness with which it has done its work. But a certain amount of material loss is essential if the enemy is to face the bayonet in a demoralized condition; for it must be remembered that field gun fire upon the objective to be assaulted must cease when the assaulters are close upon it, for fear of inflicting casualties upon the latter. For this purpose, too, as well as for the destruction of troops under cover, the field howitzer shell is essential, as its angle of descent is so steep, compared with that of the field gun shell, that friendly troops can come closer to the target without injury.

The 4·7 field howitzer is a short gun firing a heavy shell at a low velocity at high angles of elevation. These characteristics determine its uses and limitations as compared with the field gun. Thus, shot for shot, it is far more powerful for its weight, and it can search cover which the field gun cannot. But it requires very accurate ranging, since there is no long sweeping effect as with field gun shrapnel to compensate for errors; and at the same time it can carry fewer rounds for the same weight behind the horses, and therefore can afford to spend fewer rounds on ranging.

The modern field howitzer is a quick-firer, though no satisfactory type was produced for many years after the quick-fire gun had been adopted by all countries. The main difficulty to be overcome was that due to the high angle of elevation at which the piece was fired. If a howitzer was allowed long recoil, like the more or less horizontal field gun, the breech would strike the ground, and the recoil had to be controlled in such a way as to avoid this result. Two systems were evolved. In that of Krupp the recoil arrangements are on the same principle as those of the field gun, but the trunnions (the lateral projections from the barrel (or cradle) which fit into seatings in the sides of its carriage, and upon which, as regards elevation, the gun (cradle) is pivoted) are placed at the breech end instead of at the point of balance of the gun, in order to place as much of the barrel forward of the buffer as possible. In the controlled recoil system the trunnions are at the usual place, but as the elevation

of the piece is increased the resistance in the buffer is also increased automatically by mechanism that narrows the outlet of the glycerine or oil. The British 5in. q.f. howitzer of 1910 is on the latter system. Three out of the twelve field batteries of a British division are armed with it, the remainder with the 18-pounder. Our horse artillery is armed with a 13-pounder because the 18-pounder cannot move with sufficient rapidity to accompany cavalry, which is the main function of this arm.

The heavy field gun was introduced into the British Service during the South African War, more or less at the suggestion of Captain (Sir) Percy Scott, R.N., who mounted ship's guns on field carriages. The present model is a 5in. 60-pounder breech-loader, and each infantry division has four of these in a "heavy battery." It is a quick-firer in all respects save that it uses "separate" ammunition (cartridge case and projectile separated) whereas all quick-firers in the technical sense employ "fixed" ammunition (cartridge case and projectile in one like a rifle cartridge). Its function is to reproduce at the very long ranges the effect of the ordinary field gun at medium ranges. Some foreign armies have introduced a heavy field howitzer (6in. 120-pounder) instead of the heavy direct fire gun.

Another form of mobile artillery, which is rarely seen in Western Europe, is mountain artillery. Here the gun (divided into two pieces), the carriage, and ammunition are carried by pack animals, over the

roughest mountain country, and a gun can be brought into action in one minute. The one we use is a breech-loading 10-pounder. There are no mountain batteries in the British Regular Service except in India, and in the Highland Territorial Division, which has three such batteries. One of the most important functions of this artillery is the close support of an infantry attack. Pack animals can advance farther into the area of casualties than vehicles and gun-teams, and are thus able to support infantry when guns drawn by teams could not come up. The Japanese made good use of these weapons in their war with Russia.

The proportion of ammunition carried by the various horse and field batteries is shown in the table given below :—

	13-pdr.	18-pdr.	5-in. Howitzer.
With the Battery ..	176*	176*	88†
Ammunition Column ..	260*	272*	74†

* All shrapnel.
† Seventy per cent. shrapnel and 30 per cent. lyddite, *i.e.*, high explosive shell.

CHAPTER XII.

THE SPECIALISTS IN THE FIELD.

EQUIPMENT OF FIELD COMPANY AND FIELD SQUADRON, ROYAL ENGINEERS—BRIDGING TRAIN—ROYAL FLYING CORPS—ADMINISTRATION, ORGANIZATION, AND ESTABLISHMENT—CENTRAL FLYING SCHOOL—ADVISORY COMMITTEE ON AERONAUTICS—THE AIR COMMITTEE—PROVISION OF AEROPLANES—WORK OF THE CORPS—THE ARMY SIGNAL CORPS.

SINCE the introduction of the Army Signal Service the only field units of Engineers proper are the Field Companies with divisions, the Field Squadrons and Field Troops, with cavalry, and the Bridging Train, with Army Troops.

(1) A Field Company consists of a headquarters and four sections, and there are two field companies to a division. These units are commanded as a whole by the Commanding Engineer of the division (a lieutenant-colonel), who, like other commanders of his grade, has a regimental staff, an attached medical officer, and headquarters transport.

The field company is roughly of the same strength as an infantry company, and is commanded by a major, who has under him a captain (in command of the

"headquarters") and four subalterns (in charge of "sections"). The tools and stores it carries include entrenching and clearance tools (such as shovels and axes) and stores (such as wire and sandbags); explosives for demolition work; bridging material; carpenters' and smiths' tools, stores, and materials for workshop work; water supply stores, and signalling and map-making equipments. This equipment is carried by four-horsed double tool carts, six-horsed bridging wagons, two-horsed forage carts, a "G.S." wagon (four-horsed), and pack animals. The tool carts are "double," and though outwardly resembling a wagon and limber can be separated, each single cart being then horsed with two horses. They carry nearly all the entrenching and clearance tools and stores, most of the explosives, the carpenters' tools for work on the spot, force pumps for water supply, flags and reserve ammunition. The pack animals each carry a rack of field tools and a chest of explosives. The forage carts carry (besides the baggage of the sections) the rest of the water supply stores (waterproof troughs, buckets, and so on), some additional technical stores and camp stores. The bridging equipment (including the necessary superstructure of road-bearers and chesses) is carried by the three six-horsed wagons (two carrying a divisible pontoon apiece and one carrying two trestles). The G.S. wagon (besides the baggage of the "headquarters") carries the whole of the heavy workshop equipments, as well as sets of map-making instruments signalling lamps, and helios.

Headquarters has the whole of the bridging and of the workshop equipment, as well as the other contents of the G.S. wagon above mentioned. The capacity of this bridging equipment is given as 75ft. of medium bridge per field company, which will bear anything, including motor lorries, that forms part of the field army, except heavy field artillery and traction engines, though if the bridge has to be stiffened the material may only suffice for 60ft. Light bridging for infantry in file only is made with half-pontoons as supports, and enables a gap of 105ft. to be spanned per company. Or, instead of a bridge, a substantial raft can be made with the pontoons, and landing stages on each bank with the trestles. By this means it would be possible to get a heavy field gun over. Of heavy bridging, which would safely take both heavy guns and traction engines, one field company could manage three bays (45ft.).

The rest of the tools and stores are equally divided among the four sections, upon which, therefore, fall (1) all field work other than pontooning (namely, defences, clearances, and demolitions), (2) carpentry and (3) water supply. Some of the stores for the last-named duty, and additional equipment of various kinds, are carried on the forage carts; but practically all that pertains to the other arms, as regards field work, is in the tool carts and their attendants and understrappers, the pack animals. The load of the pack animal with each section is meant to be a first instalment of specialist assistance at the front. The tools and stores and so forth that it carries are

therefore selected, not with a view to adding to the tools which the infantry already has, but as requisites for work which the infantry's own equipment cannot do—such as sandbags, tools for cutting brickwork, and, above all, demolition equipment.

(2) A Field Squadron stands in nearly the same relation to a field company as a horse battery to a field; that is, it is an auxiliary to cavalry. It consists of a headquarters and four troops, the headquarters possessing four boat wagons, each of which contains a collapsible boat for rafting, and some few other stores for hasty bridging. A cavalry regiment also has some raft equipment, but neither it nor a field squadron can convey horses across water. These have to swim, on an endless line or free. Each field troop has a limbered wagon for water supply stores, and also for the easy transport of the pack-loads, which on or near the battlefield the four horses of the team carry on their backs—namely, tools, explosives, cordage, and various odds and ends; and a double tool cart, six-horsed, separable into two three-horsed carts, and equipped with tools and explosives in much the same way as the corresponding portion of a field company. The men either are mounted or ride in the limber wagons. A separate field troop, with some of the belongings of a headquarters (*e.g.*, boat wagons), is allotted to any independent cavalry brigade that may be formed. At the headquarters of a cavalry division is a small staff under the lieutenant-colonel who is in charge of the engineer services of the Division.

To-day all infantry, artillery, and cavalry are expected and taught to entrench themselves with army entrenching tools, engineers being looked upon as specialists called in from outside to deal with special points which may arise. The function of field defences is regarded as being to economize defenders. They are sited and designed therefore in such a way as to render the task of attack as difficult and slow as possible. There is no attempt to make the parapet, as of old, a physical barrier against assault. The object is to create an ideal fire position—inconspicuous, sheltering, able to sweep the foreground, and not too difficult to advance from. These conditions are met by short lengths of deep trench (one or two to ten platoons), with as little parapet as possible.

The physical barrier to assault is quite separate from the fire position, and usually takes the form of a wire entanglement or abattis, *i.e.*, felled trees with branches pointing towards the enemy at some distance in front or to a flank. For protection against enfilade, banks of earth are built, or left uncut, at right angles to the trench with passages round them for the defenders, and for the same purpose the fire trench may be recessed, in which case the firers stand not in the trench itself, but in niches cut in the parapet and front wall of the trench. If time admits head cover, that is, an increased height of parapet with loopholes for the rifles, is constructed, and the last stage is overhead cover, in which parts of the trench are roughly roofed over and earth piled up on top.



xii.] GENERAL SIR CHARLES DOUGLAS.

[*Lafayette*



xiii.] H.R.H. THE DUKE OF CONNAUGHT.

[*Gale & Polden*

(3) The only remaining field unit of Royal Engineers is the Bridging Train. Two of these are allotted to each Army. Each consists of forty-two pontoons, and sixteen pontoon wagons and trestle wagons. There are four four-horsed G.S. wagons to each train, to carry the heavier tools and the workshop equipment. They also carry some field tools and a small quantity of ammunition as well.

In regard to bridging capacity, each train is capable of making 210 yds. of medium bridge or 105 of heavy bridge. By placing the pontoons and trestles at half-intervals, a bridge can be made to take mechanical transport.

The Royal Flying Corps.

Within the last three years the Army has been equipped with a new arm, which has proved of incalculable value from the very beginning of the War. The Air Service as it exists to-day dates back no farther than the spring of 1912. Aeronautics has been recognized as a branch of military instruction since 1879, when a Balloon School was started for the Royal Engineers at Chatham; but at that date aeronautics meant the handling of captive balloons for purposes of observation, and the first advance from this standpoint was made in the present century by the experimental construction of small navigable balloons. Meanwhile the advent of the aeroplane, rendered possible by the invention of the petrol engine, had provided a wholly new method of navigating the air, and the military authorities

of all great nations quickly discerned its importance for operations in the field.

An "Air Battalion," formed early in 1911, included aeroplanes in its equipment, but the decisive step was taken a year later, when the Royal Flying Corps was established as an independent fighting organization, embracing and co-ordinating every phase and branch of aerial warfare. Then for the first time flying was treated by our military authorities as a thing in itself, and not as a mere function of any existing arm. The Corps was all one, capable of being used as a whole with either the Navy or the Army, or with both together, as circumstances might dictate; but its organization was divided into two Wings, a Naval and a Military, administered by the Admiralty and the War Office respectively, but sharing in common a Central Flying School established at Upavon, on Salisbury Plain. At the beginning of 1914 the airships were handed over entirely to the Naval Wing, and the Army now devotes almost its whole aerial effort to the aeroplane service, though there is a Kite Squadron as well.

The Military Wing is administered at the War Office by a separate department having at its head a Director-General of Military Aeronautics. The first and present occupant of this post is Major-General Sir David Henderson, K.C.B. It is organized in eight aeroplane squadrons, of which at the outbreak of the War only seven had been formed. The 1st, 6th, and 7th squadrons, with the headquarters of the Wing, were stationed at South Farnborough, the 3rd

and 4th at Salisbury Plain, the 2nd at Montrose, and the 5th at Gosport. Each squadron is supposed to possess 12 aeroplanes in perfect order for active service at any given moment, and, inasmuch as experience has shown that in order to secure this result double the number must be provided, the establishment allowance for the full eight squadrons is 200 machines, in addition to 50 for the Central Flying School. Some of these are monoplanes, but the great majority are biplanes. The full establishment of men voted in the Estimates for 1914-15 was 1,429, an increase of 424 over the previous year. Of these, 165 were officers, 19 warrant officers, and 1,245 non-commissioned officers and men. By August the whole eight squadrons had been completed.

In the Military Wing officers are graded as Commanding Officer (carrying the temporary rank of lieutenant-colonel), Squadron Commander (rank of major), Flight Commander (rank of captain), and Flying Officer; and this irrespective of whether they enter the Corps from the Regular Army, the Reserve of Officers, the Special Reserve, or the Territorial Force. There is a Royal Flying Corps Reserve, divided into two classes with different obligations in time of peace, but equally available in time of war. Into this civilians can pass as officers after graduating at the Central Flying School.

Officers of the Royal Flying Corps, Military Wing, are drawn from all branches of the service; but they must first obtain at a private aerodrome their Royal

Aero Club certificate for flying. Thereafter, on acceptance for the Corps, they receive a grant of £75 to cover the expense. They then go through a specialized four months' course of instruction in military flying and cognate subjects at the Central School, and after graduating there they are appointed either (*a*) for continuous service for four years in the Royal Flying Corps, or (*b*) to the permanent Staff of the Flying School, or (*c*) to the Royal Flying Corps Reserve. The rank and file are transferred from the Army or enlisted directly into the Corps, either on a regular or a reserve basis. They are taught at the Central School. After graduation at the Central School, more advanced military training, in such matters as observation and the transmission of intelligence, is given with the squadrons at one of the flying establishments, which have been located at South Farnborough, Gosport and Montrose, as well as Salisbury Plain. Great importance is attached to cross-country flights, aud arrangements have been made or set on foot by which a small rent is paid to the principal aerodromes for landing rights and for the use of sheds by members of the Corps engaged in cross-country practice.

An important feature of the organization is the Royal Aircraft Factory, which is established at South Farnborough, and is a development from the old Balloon Factory. It is administered by the War Office and undertakes the higher training of mechanics, repairs and reconstruction work, tests of engines and aeroplanes, experimental work, &c., and, to a limited extent, the actual construction of machines. It works in close

touch with the National Physical Laboratory at Teddington, which has a special division in the engineering department for research in aeronautics. This research is conducted under the supervision of the permanent Advisory Committee on Aeronautics, a body of eminent scientific and practical men under the chairmanship of Lord Rayleigh, appointed by the Prime Minister as long ago as 1909. An officer from the Central Flying School and from each of the two Wings was added to this committee when the Royal Flying Corps was instituted. There is another permanent body of a consultative character known as the Air Committee, to which are referred questions in connexion with flying that affect both the Admiralty and the War Office. Its status is that of a permanent sub-committee of the Committee of Imperial Defence, and it is composed of representatives of the various departments concerned.

On the subject of the aeroplanes themselves, naturally little detailed information is available during the period of hostilities. As to their numbers, we must be content with such statistics as have been disclosed in Parliament, and these cannot be relied upon as up-to-date. We may presume, indeed, that there has been a notable increase since Colonel Seely reviewed the position in the House of Commons in February, 1914; for one of the satisfactory features of his statement was the declaration that we could already obtain in this country all the machines needed to maintain the present establishment, "and a great many more, too, if required." Some were being constructed in the Royal Aircraft Factory, but a

far larger proportion were being supplied by private firms, to Government specifications and under military inspection. The official design known as the "B.E.," a type to which the majority of our Army aeroplanes belong, has already distinguished itself by the admirable service it has rendered in the War. When Colonel Seely spoke in February, we possessed a total of 161 machines, 52 having been struck off and 100 added since the previous July. Their average speed was between 65 and 66 miles an hour, a speed much greater, it was believed, than the average of any foreign Power's aircraft. Individual machines fly much faster. It is satisfactory to be able to add that experience in the War has borne out Colonel Seely's belief, and further that British aeroplanes have been found to excel in another vital quality, not less important, that of rapidity in climbing. The power to climb above your enemy gives the best chance of escaping him and of assuming the offensive with success, and even if this does not in itself ensure safety the higher aeroplane by diving can start away with a great advantage of speed and should escape by that method if necessary. Moreover the B.E. machines can be steered along the ground and this gives additional chances of safety when alighting in narrow places. The German military "Taube" craft are slower, and more sluggish in response to their controls, and suffer disadvantage accordingly in contests with British antagonists.

We may feel a well-grounded confidence in our machines, but this alone would be of small avail.

It is "the man behind the gun," we know, that tells when the tussle comes. The remark is at least as true of aircraft as of guns; and in this respect we can have no misgivings. The War was but a few weeks old when that emphatic testimony to the commanding excellence of the British Flying Corps was given which has been so much quoted ever since. It speaks volumes for our youngest military corps that when it was not 2½ years old the French Commander-in-Chief should volunteer his praise of its "perfect organization" and the "perfect training of its pilots and observers"; it speaks at least as much for the quality of the men of whom it is composed, when at the same date Sir John French could report that already in its encounters with the enemy it "has succeeded in establishing an individual ascendancy."

The Army Signal Service.

The Army Signal Service represents a successful attempt to combine under one management all the means of transmission of orders and messages, other than those of a routine kind and unofficial correspondence, which are dealt with by the Army Postal Service. This is done by the Signal Companies of the Royal Engineers. The means of signalling employed are, (1) for short distances and within the unit, semaphore and code, in which the letters are represented by the positions of the signaller's arms or flags; (2) for longer distances the Morse code of dots and dashes sent by waves of flag, flickers of heliograph, or lamp; (3) telegraph or

telephone (cable resting on the ground or bare wire supported on light poles); and (4) wireless. Both in visual signalling and in the organization of the signal service generally this country has a considerable lead over other nations. Visual signalling in particular has been almost a feature of the British Army for over forty years past, whereas its utility has been recognized by Continental armies only within the last ten years.

The function of the signal squadron attached to a cavalry division is to keep touch between signal troops of the four brigades and the Divisional Headquarters, and also between the latter and General Headquarters. The Divisional Signal Company of the infantry division consists of four sections, three of which are told off to accompany the headquarters of the three infantry brigades and the fourth is for general purposes within the division. There are other signal units employed directly by General or Army Headquarters, and yet others by the lines of communication. In no army in the world has signalling been so carefully studied and worked out as in the British.

CHAPTER XIII.

THE ARMY MEDICAL SERVICE.

SANITATION AND TREATMENT—PRINCIPLE OF DEALING WITH WOUNDED—REGIMENTAL AID POST—FIELD AMBULANCE BEARER AND TENT SECTIONS—CLEARING HOSPITAL.

THE Royal Army Medical Corps is organized for administrative purpose into 35 companies and a depôt, and it draws upon Queen Alexandra's Nursing Service for its women nurses and upon the Army Service Corps for its transport drivers.

"The larger the medical establishment the fewer the cases with which it has to deal" is an aphorism which, though a paradox, expresses the real facts in an army medical service. The task of a modern army doctor is fully as much, if not more, to prevent disease as to cure it, and for the last twenty years at least this side of its work has been steadily developing. Not only are the sick and wounded treated cleanly, but the camps, the water sources, and the conservancy work are even more closely watched than the patients.

In the Army Medical Service the two functions of sanitation and treatment are dealt with, as

far as possible, by two distinct branches, though the medical officers have, as a rule, to superintend both. Every young officer of any arm is obliged to pass an examination in elementary sanitation; every unit on service has its medical officer for supervision, not only of the sick but also of the whole, with men of the Royal Army Medical Corps under him as sanitary police; and wherever there is a standing post of any importance —even a post on the line of communication—there is a "sanitary squad" or "sanitary section" to control the public health of the occupied area.

Of the organization for dealing with sick and wounded, the cardinal principle is evacuation. The sooner a patient is cleared away from the mobile medical organizations the sooner will he have clean and peaceful surroundings in which to recover, and the sooner can the organizations near the front move forward, empty and ready for further work. The object aimed at, therefore, is to bring a sick or wounded man, at the earliest possible moment, within the province of the line of communications, and the organization that deals with him between the front and the railway, the Clearing Hospital, is the key of the whole system.

When a soldier is wounded, he walks, or is carried by the regimental stretcher-bearers to the Regimental Aid Post, where the regimental medical officer attends to him In accordance with the maxim that "the wounded man's fate is in the hands of the first doctor who touches him," there is a growing tendency to develop the regimental aid post into something much more than a mere first-aid

station. Thence he is taken to the Advanced Dressing or the Main Dressing Station of the Ambulance which deals with the unit he belongs to. After that he is transferred through a clearing hospital to a hospital on the line of communication. He then, if well enough, goes to a convalescent depôt, and, after a time, back to his unit, or is given leave; or he may be sent to England by a hospital ship and then to a Military Hospital.

All parts of the medical service within this zone—viz., from the regimental aid post to the place where the clearing hospital takes over the patient—belong to the field ambulance, of which each infantry division has three. The field ambulance is organized into a bearer section and a tent section. The part played by the bearer section's stretchers and ambulance wagons has already been noted. The tent section contains three tent subdivisions, each of which can act as a dressing station, advanced dressing station, or collecting station as required. Sometimes only one tent subdivision need be unpacked and opened for work, while the others remain in a mobile condition to follow the advance of the troops without a check; and it is always one of the senior medical officer's chief preoccupations to keep at least one tent subdivision in reserve to meet a counter-attack or other fighting that may develop in a new locality at a later stage. But an even greater preoccupation is to clear the field ambulances at the earliest possible moment, so that they may be ready to move forward with the army in case of victory and pursuit. Crowded

ambulances not only breed disease, but may even delay the army.

The same reason dictates the principle that wounded are always fetched by the organization in rear and never sent back by the organization in front. The clearing hospital has no transport of its own, but is given what it needs by the Inspector-General of Communications, who requisitions country carts and even uses the supply and ammunition lorries returning empty to railhead for the conveyance of wounded. There are, however, certain objections, partly of a sanitary and partly of an administrative character, to the free use of meat and bread lorries for the conveyance of wounded, and it is probable that this would be rather an emergency method than a normal practice. At railhead on the line of communication is the clearing hospital itself, which is a large hospital with tents, stretchers, and blankets instead of buildings, beds and sheets. This unit is what its name implies, and it must be so managed, both in point of treatment of wounded and as regards administration, as to be always ready to take over fresh casualties from the back door, so to speak, of the field ambulances. From the clearing hospital patients go by hospital train, canal boats, or otherwise to one of the stationary hospitals at various points on the lines of communication, or to the big general hospital at the base, and thence, if necessary, by hospital ship home. Convalescents are sent from stationary or general hospitals to rest camps on the line of communications, or, if necessary, home.

In the case of cavalry, the medical service (apart from sanitary) is somewhat differently organized. The cavalry field ambulance (of which there are four to the four-brigade division) is divided into two bearer and two tent sections; its light ambulance wagons are placed under the regimental medical officers of the cavalry regiments to enable them to bring their scattered casualties to collecting posts, where they are taken over by the heavy ambulance wagons. Thenceforward the procedure is the same as described in the case of the infantryman. These arrangements apply also to the other arms.

CHAPTER XIV.

AN EXPEDITIONARY FORCE IN THE FIELD.

BASE—ZONE OF CONCENTRATION—STRATEGIC DEPLOYMENT—DEEP AND BROAD GROUPING—FUNCTIONS OF CAVALRY—RECONNAISSANCE AND PROTECTION—ADVANCED GUARD—MARCHES AND QUARTERS—CONCENTRATION AND MOBILITY—OUTPOSTS AND PIQUETS—VANGUARD AND MAINGUARD—"FIXATION"—DECISIVE ATTACK—DEFENCE.

THE movement of an Expeditionary Force to the theatre of operations always involves, in the case of this country, the cooperation of the Navy and the selection of an overseas base. The War Office does not commit itself to any definition of "command of the sea" in the abstract, but describes it as naval conditions which enable the Admiralty to accept the task of conveying the Army across the seas in question and maintaining its communication with the home country. The Admiralty has charge of all sea transport, the military staff at the point of embarkation handing over the men, horses, and material, and that at the point of disembarkation

receiving them from the naval officers charged with the landing of them.

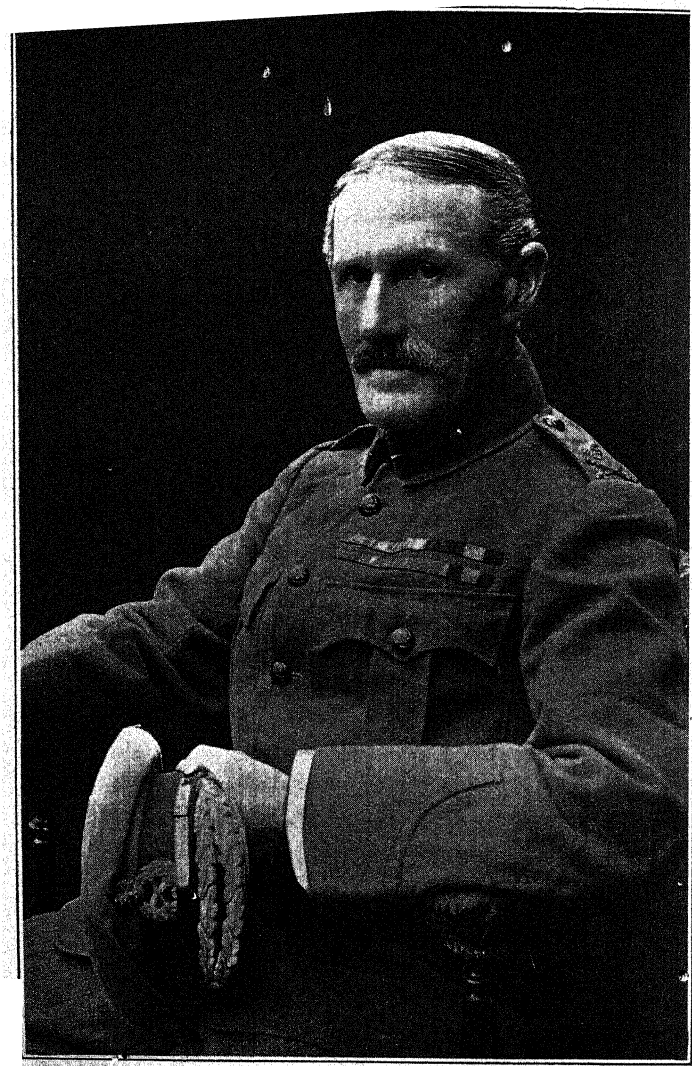
The Expeditionary Force, being supposed to have passed safely across the sea, disembarks at one or several ports, one of which will presently be organized as the base. The base may be regarded as a great depôt into which supplies of men are poured, and from which they are sent to the front; and its relation to the field army is a matter of supreme importance. Without a base of some kind there can be no constant supply of men or food or ammunition, for though food may be found in the country, and men may manage to fight their way to the front, nothing can replace expended ammunition except ammunition from the factories at home.

At the base the Expeditionary Force is covered by a lightly-equipped force of fighting troops (cavalry largely), and preceded by Army Service Corps and Army Ordnance Corps units to make everything ready for it in the zone of concentration.* Here the army for the first time assembles as such, and trains, supply columns, ammunition parks, &c., are brought up. Here, too, it takes up the initial grouping in accordance with the strategy to be pursued. Very broadly speaking, there are two such groupings—broad-fronted and deep. On the choice between them much depends, as it is rarely possible to repair an initial fault in the "strategic deployment," as it is called.

*In the case of operations in a friendly country, as France, the movement to the concentration zone will often be largely by train.

Controversy between the adherents of the broad and those of the deep forms has raged keenly for some twenty years past, and the former has become more or less identified with the German school of thought and practice, the latter with the French and British. The chief advantage of the broad-fronted strategic deployment is that it is speedier—because more lines of railway are available to convey troops to the zone of concentration, and more roads by which they can march out of it, and because the broader the front the smaller the depth of a given force, and the less time it takes for the rear troops to come on the field of battle. But almost equally important is the fact that the wide spread of its wings enables it to outflank a deep grouping and their folding in leads direct to the envelopment and destruction of the enemy in a single victory so complete as to need no pursuit. The weakness of the broad front, however, is that unless the correct direction has been chosen for its advance it may not find the enemy's grouping at all, or, at least, find it in a region that compels the would-be enveloper to make a gigantic wheel of his whole line in a new direction, all the while in imminent peril of a smashing blow upon the part which has to stand still as pivot of the wheel. Thus the broad-fronted deployment, as against the deep grouping, gives maximum success if successful, and maximum disaster if unsuccessful.

The deep grouping offers the advantages that a front of battle can be formed in any direction with the smallest amount of interior movement, and that while a portion



xiv.] GENERAL SIR HORACE SMITH-DORRIEN.

[J. T. Newman

of the whole force engages the enemy and by forcing him to fight develops his positions and strength, the rest (perhaps as much as half the army) is reserved and therefore free to manœuvre for decisive battle and victory on the basis of real knowledge instead of hypothesis. On the other hand, the portion first engaged will have to fight itself out in the face of superior forces, and may be overwhelmed by the fierceness of the simultaneous onset of the broad-fronted enemy, with the result that the reserved "mass of manœuvre" may have to be employed in driblets to stiffen it up, or as a mass to retrieve disaster, instead of being able to keep itself for the great counter-attack. Moreover, its greatest victory will need a pursuit to make it good. It may break up, but cannot round up, the enemy, and history shows how little surplus energy is usually available for pursuit after the tremendous effort of victory.

Our army, then, disposed probably in depth, advances from the zone of concentration into the fateful field of operations, aiming at the enemy's main army. Preceding it, at two or three days' march, is the main mass of the cavalry, the object of which is to determine the general outline of the enemy's grouping, to find his flanks (if possible), and, probably as a preliminary to this, to engage and defeat the hostile cavalry mass that is advancing on a similar mission. To achieve this, first of all patrols must be sent out far ahead to find either the main body of the enemy or his cavalry, or both, and as these patrols will sooner or

later meet protective forces of the enemy, which must be driven in before any useful information can be obtained, they are backed by larger bodies, usually squadrons or regiments, which are powerful enough to pierce mere screens. Behind them, well in hand for meeting sword-to-sword with the hostile cavalry, is the main body of the cavalry division, keeping touch with its patrols and with the Commander-in-Chief far in rear by wireless.

If the cavalry mass is successful in its fight with or in its evasion of the hostile cavalry mass, as the case may be, it pushes on to hold a position within the enemy's screen, from which it can send out fresh patrols in all directions and where it can keep a gate open for their return. Here, again, we touch upon a great controversy. The adherents of the deep grouping deny that cavalry reconnaissance gives information sufficiently valuable for decisions of vital importance to be based on them, while the supporters of the broad enveloping front trust to their horsemen to put them right in time should their direction be a false one. The advent of aeroplane reconnaissance, too, seems to have told rather in favour of the side which reserves an open mind than that with preconceived ideas and settled dispositions; and, more than this, it has tended to some extent to discount the value of all cavalry reconnaissance.

What duty, then, is left to cavalry during an advance for battle? Detailed reconnaissance certainly, and clearance of the foreground which the hostile cavalry

would otherwise infest with highly mobile riflemen, to the great discomfort and trouble of the slow-moving infantry. But besides reconnaissance there is the other great duty of protection. Only cavalry can cover a really wide front in proportion to numbers, and only cavalry can do effective local scouting of hill and dale without delaying the infantry that moves along the roads. Cavalry thus has three distinct duties :—(1) Reconnaissance and clearance of the foreground, which fall to the cavalry division ; (2) protection, which falls to the extra brigades of cavalry available ; and (3) local scouting, which is the duty of the divisional cavalry.

Behind the first of these categories of cavalry, and more in touch with the main Army, comes the protective force of cavalry. Assuming the principle of depth, with its corollary of a large fighting advanced guard of all arms, protective cavalry tends to be merged in the advanced guard, and has the functions (1) of pushing forward to seize points of special importance in advance of the slower moving infantry of the advanced guard, and (2) of covering the flanks of the advanced guard against the swinging-in of the hostile wings. The advanced guard itself "takes contact" with the enemy's line, and, if battle is within the immediate intentions of the Commander-in-Chief, engages seriously upon as broad a front as possible, thereby bringing into action against it the corresponding forces on that length of the enemy's front. From that point the more resolute the conduct of the advanced guard

the more surely the enemy will be fixed. Then the advanced guard's battlefield will become a fixed pivot for a manœuvre of the rest of the Army, disposed, as we assume, in depth.

How will such an Army live, move, and have its being up to the moment when it forms for battle? Obviously, in whatever form allows of the greatest ease of concentration in any direction, the greatest mobility, and the greatest comfort for the troops All these depend upon the depth of the marching column and the length of the day's march, and in the regulation of these two factors according to the needs of the situation lies the whole art of what is called staff work. Here we come to the very *raison d'être* of a staff—marches and quarters.

An army marches along the road four men abreast in the infantry and two to four in the case of the cavalry, and rarely more than one vehicle in the artillery and transport. In a uniform body of all arms, the rate of marching is on the average 2½ miles an hour. It therefore occupies a very great extent of road space, and takes a long time to pass a given point. Now the time to assemble in one camp at the end of a march is practically the time needed for the column from head to tail to pass the camp gate, and the time required to move off from camp next morning is exactly the same. With complete concentration of the column on its head every night, therefore, the net gain is a minimum, since the greatest possible part of the working day is consumed in movements into and out of camps. On the other

hand, if the column halts simultaneously along its whole length in the evening—falls out by the wayside, so to speak—and resumes the march simultaneously in the morning, no time is spent in pushing out from camp or pulling in the tail at the next camp. Minimum concentration therefore acts against mobility.

Further, unless the force draws its supplies from the country traversed, its supply wagons (of whatever kind they may be) must reach the troops in the afternoon or early evening, so that dinners can be cooked, and the empty wagons get back some miles to refill from the next échelon of wagons. The more the column is locked up on the head every night the sooner naturally the head must halt, and the shorter the distance these supply wagons must make good in the afternoon when the roads are clear of troops the sooner the leading troops will get their food. Supply, if from the rear, therefore also acts against mobility.

But if supplies are obtained from the country, the greater the length of the column when it halts at night, the larger the area that can be tapped for them without imposing long distances on the requisitioning parties. At the same time, too many troops on a road quickly exhaust the capacity of neighbouring villages and farms, and as soon as that point is reached supply from the lines of communication becomes the only possible means. The benefit of local supply to mobility, therefore, soon ceases to tell.

These, set forth in the simplest form, are the main factors which the Commander-in-Chief must take into

consideration when he desires to move in a given direction. They are unfavourable, unless he is able either to cover a wide area—whether broad or narrow-fronted—with his columns and so to live on the country, or to take his time and move forward seven or eight miles a day in a highly-concentrated formation. In normal circumstances, therefore, a column is locked up to half its full length every night, so as to shorten both the overhauling work of the full supply wagons and their retrograde movement to refilling point when empty, and also to obtain a certain degree of concentration for safety's sake every night, the accompanying disadvantage of time wasted in pulling out the column to full length being accepted. Recently, however, the overhauling power of fast motor transport has been exploited to the full, and mobility gains (even in case of supply wholly from the rear) by the halting of the column practically at its full length without closing up.

The actual quartering, as well as the supply and the mobility of the troops, depends, to some extent, upon the degree of concentration that is thought necessary by the staff. If the concentration round a particular village is great, then, while some troops can be billeted in the houses, the rest must either camp or bivouac—that is, live in the open under canvas or without shelter at all—since time spent in marching to distant quarters off the route, like time spent in filing out of camp to full length, is time wasted. The greater the extension of the column, therefore, the easier it is to find billets for everybody.

Not all the troops, however, can rest. A proportion must be pushed out ahead to take up a defensive line for the protection of the rest during the night, and to enable them to carry out in security any manœuvre that may be necessary next day, as, for instance, a march sideways (technically "to a flank") to reinforce some parallel-moving column. By day the work of outposts is divided between the divisional cavalry and the infantry, the former scouting the roads, coverts, and other difficult and distant spots, and the latter watching the visible landscape by means of sentries and preparing for a stubborn defence against odds by entrenching a line of piquets. Outpost duty being most exhausting, the strict minimum of force is allotted to it. The outpost companies divide up the ground between them, and their commanders fix the number and position of the piquets, each piquet then providing a group of sentries in its own front. A small post, out of the main line, is called a detached post. The balance of the company is called the support, and is held ready to reinforce a threatened piquet. Either the piquets or the supports, or both, furnish some "reconnoitring patrols" to search localities in the foreground that are invisible to the sentries. At night the same system is observed, save that, as the defence is more difficult and the attack is obliged to follow well-marked lines of advance on pain of losing its way, the piquets may take up fewer and stronger defensive positions, with sentries close at hand and patrols constantly searching the intervals between them. The bulk of mounted

patrols are generally withdrawn, and the foreground protected either by reconnoitring patrols of infantry or by "standing patrols" of cavalry or infantry. Guns and machine guns may also be used with outposts when there are definite points of approach, such as a bridge, to be taken under fire in case of attack. The outposts protect the troops behind them until the latter move forward again with their advanced guard well in front.

It has already been mentioned that the functions of the advanced guard differ according to the form of general tactics adopted by their authorities. In the case of the broad-fronted army of many parallel columns that means to override opposition whenever and wherever met—the German Army, in fact—the advance guard is small and has to prevent only simple surprise; in the deep-formed army which reserves its plan of battle and its forces until contact has been taken, it is a great fighting body of all arms. But there is a good deal of similarity between the leading portions of the advanced guards in both cases; but in the system of "depth" there are heavy columns of infantry and artillery behind them, whereas in the system of "breadth" there is practically nothing but open road between them and the main body. In either case the advanced guard proper divides into two main portions, one generally called the vanguard, which is charged with the duty of reconnaissance and is preceded by a "point" of three or four men at 50 or 60 yards distance, and protected on each side by "flankers," who move along from hill to hill or field to field, scouting for

possible assailants on the flanks. This vanguard itself carries out such search of buildings, copses, &c., as is necessary, so far as is possible without delaying the column all down its length. Behind the vanguard, and connected with it by pairs of men placed at intervals for the passing of orders and messages and to keep "touch," comes the "mainguard," or fighting portion of the advanced guard. The duty of this is to seize every successive point to the front from which fire might be opened upon the main body which it is covering, to drive in hostile parties as far as possible, and to take up such strong positions as it may find to cover the deployment or other manœuvre of the main body behind.

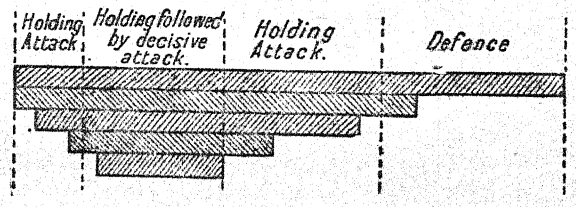
Here, of course, the resemblance between German and other advanced guards ceases. The former have simply to hold ground for the main body's deployment, and that for a short time only, since as early as possible the long full-depth column is split up into several shorter parallel columns, which move on high roads and by-roads and even across country. The latter—our own and the French type of advanced guards—are no mere mainguard, but a real main body of advanced guard, and as soon as the lighter bodies in front meet opposition they cannot master the guns of this main body trot forward, and gradually there arises the "contact of fixation," in which not only the advanced guard but large parts of the great main body will become engaged.

By this time, however, we are in the domain of general tactics, and it is not within the scope of this

book to discuss the problems that would open out before our Commander-in-Chief as he races forward with the 1st échelon of General Headquarters in motors to join the brigadier-general who commands the advanced guard. Very broadly, these general tactics grow out of the preceding strategy, the one being the part complementary to the other of the whole doctrine of war, Envelopment, begun even in the grouping of forces in the zone of concentration, and completed by the swinging-in of overlapping wings, and break-up of the enemy by fastening upon that part of it which has been shown to be weak while the rest are prevented from aiding it by the fierce self-sacrificing attack of "fixation"—these are the two main tendencies in general tactics. The first is that of the Germans, the second that of the French and ourselves.

The two ideas which the whole military effort of the fighting forces is employed to realize are fixation of the enemy by the advanced guard, or the defensive absorption of his efforts by the rearguard, and a decisive attack that is to break up the enemy in a selected part of the front of battle. It must be noted that a rearguard is not necessarily, or even usually, cover for a beaten force. In the French and British form of strategy and general tactics a shifting defence of the rearguard kind is employed to attract the enemy into the wrong direction, to compel him to deploy prematurely, or to gain time for a manœuvre to develop elsewhere. To achieve the first of these ideas is the very heavy task of one part of the army; to assist in preparing the first and to

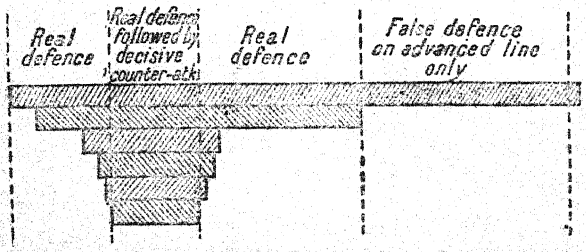
achieve the second are the tasks of the other. It is fatal, however, to mark off the non-decisive part from the decisive, for human nature being what it is, the fixing troops, if they know that their rôle is subordinate, will not put forth their maximum effort, though nothing less than that will suffice. Hence it is laid down that in its own time and place every attack is a decisive attack. Troops once engaged have to sacrifice themselves if necessary for the achievement of whatever degree of success their numbers and conditions can give them. What differentiates the holding or fixing attack from the decisive attack is the graduation by the Commander-in-Chief of the forces to be available in each portion of the field. This is roughly indicated in the accompanying diagram. Each horizontal black



layer represents the total military effort of the troops in that layer. In the defensive portions of the field a minimum of force is placed, in those of the holding attack two and even three, and on the decisive front four to five layers of military effort can be brought to bear. Thus our Field Service Regulations refer to the decisive attack as a "culmination of gradually increasing pressure at a selected point."

Very roughly speaking, it may be said that the first layer represents the effort of the protective cavalry and parts of the advanced guard; the second, that of the rest of the advanced guard and the bulk of the artillery; the third, that of a large proportion of the remaining infantry; the fourth, that of the artillery concentration upon the decisive point; and the fifth and last, that of every remaining infantry man, launched to the decisive attack without regard to possible failure, and with the one aim and purpose of closing with and breaking up an enemy who is half-blinded and half-stunned by the tremendous rain of shells from the concentrated artillery of the fourth layer.

In defence, the idea is practically the same, though approached from the reverse direction. The first layer



represents the whole effort of a force just sufficient to hold its own and to induce false deployments, misdirections, and mistimings on the enemy's part, by occupying an advanced line for some time. The second layer represents the defence on the main line stiffened by artillery and by fieldworks of a stronger and more complete kind than the rough-and-ready trenches

of the advanced line. The third layer represents the extra strengthening of that part of the line of defence nearest to the area decided upon for the great counter attack, and the fourth and fifth the artillery and infantry components of the counter attack itself. Note, in passing, that owing to the possibility of careful preparation by entrenchments and other auxiliaries, it is possible to be more economical of forces on the non-decisive part of the front for the benefit of the front of counter attack, to which is allotted, according to British regulations, not less than half of the total available force.

CHAPTER XV.

COAST DEFENCE.

LORD PALMERSTON'S SCHEME—IMPROVEMENTS UNDER SIR ANDREW CLARKE—GUNS AND THEIR PROTECTION—SUBMARINE MINES — SEARCHLIGHTS — INVASION AND RAID.

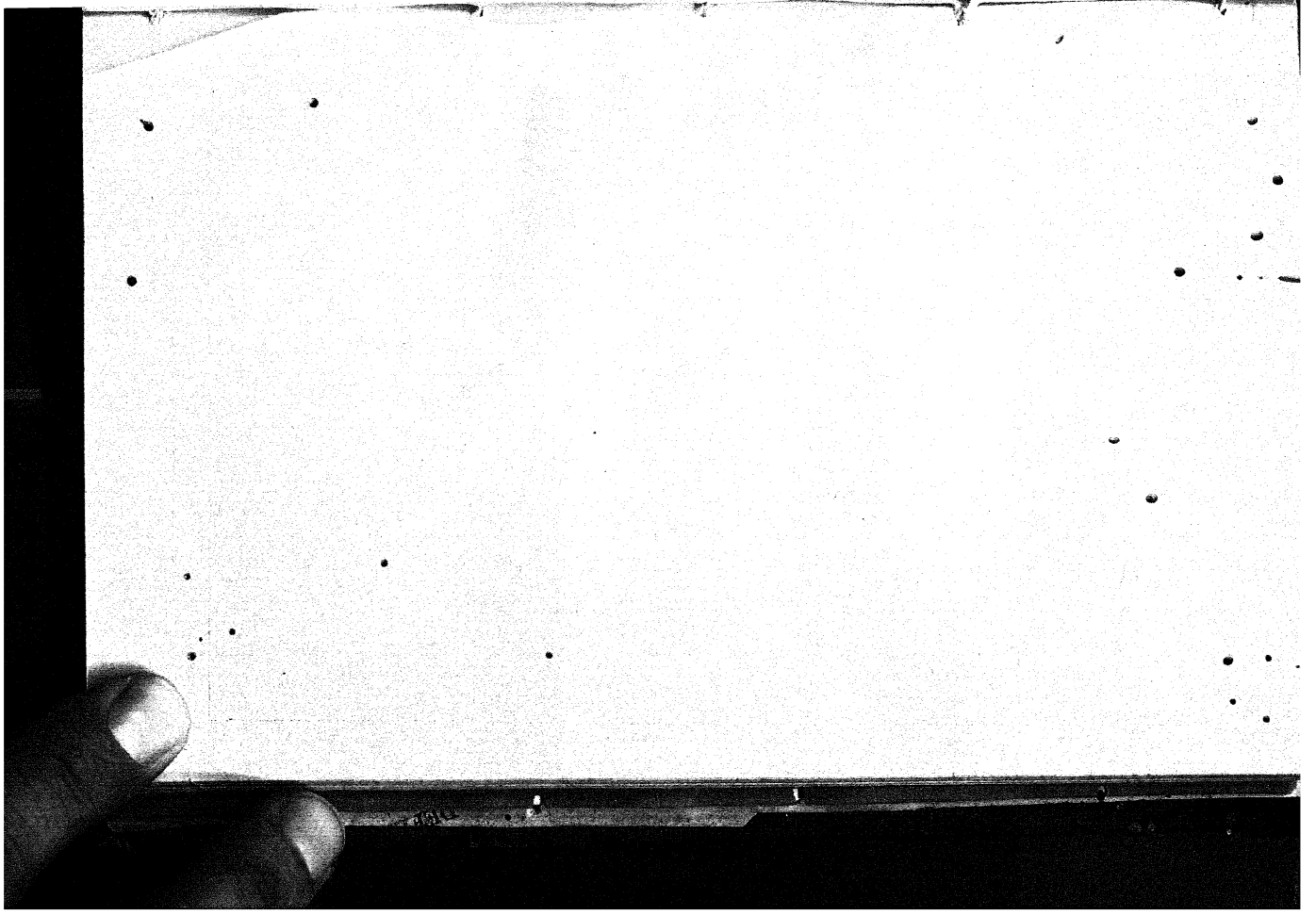
COAST defence is the term applied to the military and naval precautions taken to defend the coast-line of a country against attack in any shape or form. The defence must be able to repel a small landing-party or an invading army, a naval bombardment or an attack carried out by torpedo-craft. The organizers of the defence have also to bear in mind that the strength of the attack is conditional upon the enemy's general position at sea; the attack will be carried out, that is, by the ships that are not urgently needed for the main battle at sea, or by the fleet itself after its numbers have been reduced by an engagement in which it has proved its superiority.

When Lord Palmerston evolved an elaborate scheme of fortifications for the British coast defence service, the necessity for an all-powerful Navy had not been

established as a principle, and the forts, in consequence, were made as formidable as possible. In appearance they were not unlike three-deckers. They were constructed sometimes with two tiers of guns, and were placed in close proximity to one another, offering, of course, an excellent target to an enemy's guns. Battleships were of wood, and sails were still used. Enormous guns were provided for both the forts and the ships. After the bombardment of Alexandria in 1881, however, it was generally recognized that coast guns widely dispersed along the line of coast afforded a more formidable means of defence, as the attacking fleet could fire only on one at a time at short range. A more modern system of fortification, therefore, came to be adopted within the five years following the famous bombardment, the pioneer of the new scheme being Sir Andrew Clarke, who held the post of Inspector-General of Fortifications. Not only were the forts placed at a greater distance from each other, but the improvement of the guns was taken seriously in hand. Longer range and greater accuracy of fire were secured, the breech-loader ousted the muzzle-loader, and the important question of mounting, which had already given rise to vigorous discussion, was finally solved by the adoption of a system of disappearing mountings. Muzzle-loading guns died hard, it is true, and so late as 1906 a certain number were employed in coast defences. They varied greatly in size, their calibre ranging from 7in. to 17.25in. This great variety in the guns used contrasts strangely with the present regulations laid down by the War Office,

which prescribe a 9.2in. calibre for heavy coast defence guns, and a 6in. gun for smaller forts which are not likely to be attacked by the most formidable of the enemy's battleships. The settled type became possible only after many improvements in breech-loading guns had been made, and when it was realized that in future developments would be on the side of increased rapidity of fire and a higher standard of velocity. In the old system each fort contained a number of guns, but gradually the number was reduced, first to four and then to two. The advantage of the two-gun system is that the guns can be worked as a group, and the arc of fire is not restricted by other guns on the two flanks —a restriction which necessarily exists in a four-gun battery. The two-gun battery has therefore been adopted as the standard type, though exceptions are occasionally made.

The problem of protecting the guns, their magazines and detachments, from the enemy's fire, or from attack by such troops as might be landed, was also a serious one. The older method of quartering the garrisons inside the forts, protected by casemates, came to be discarded, and instead they were placed in barracks near at hand, while the forts were left in the hands of a few men in peace time. The gun itself has a concrete apron to protect its front, and the magazines a concrete cover with an earthen parapet. To guard against attack on the garrison by landing-parties the approach to each fort is obstructed by a sunk fence, which can be fired on from the parapet which closes the gorge, but





xv.] GÉNERAL SIR IAN HAMILTON. [*Elliott & Fry*

is invisible to the attacking party. If the site of the fort possesses natural advantages, such as the steep side of a cliff, no such obstacle is required. The gentle slope of the modern parapet offers no well-defined mark to the enemy, covered as it is by grass, while the guns themselves take on the colour of their surroundings and are not easily distinguished.

The importance of submarine mines in coast defences was early recognized. The swift warships of to-day are not necessarily impeded by the outlying main defences of a fortified place, but are quite capable of running in to attack at close range. There is in particular a risk of their doing this when a wide river mouth or arm of the sea allows of the manœuvring of warships. Passive obstructions, such as sunken craft or piles, cannot be effective in such cases, and active resistance in the shape of mines is the only useful form of defence. Harbour defence was therefore secured by submarine mines of two types, both fired electrically. Contact mines, which explode on contact with a ship, are moored near the surface, making the whole of the waterway unsafe to traffic. Under the British system, however, a narrow channel is marked out by buoys or lightships for the navigation of friendly vessels under special pilots. Observation mines, on the other hand, work with far greater subtlety. They are placed so deep as to allow friendly vessels to pass over them with impunity. When a hostile ship approaches the position-finder in the hands of an observer on shore traces its track on a chart, and makes the electrical connexion at the precise moment

when the ship passes over a mine. The Brennan torpedo, another variety of mine, is also worked from the shore by means of connecting wires; but it is no longer used. The fact that it does not obstruct ordinary traffic is in its favour.

It was found necessary to devise further measures against the attack of the mosquito craft with which modern navies are so abundantly supplied. These small craft, still more the modern submarine, might steal into a harbour by night and there torpedo the ships lying at anchor. To prevent surprise attacks of this kind searchlights illuminating the harbour mouth are employed. A high-power searchlight effectively prevents the torpedo-boat from making its entrance unseen, but if the vessel's course is to be pursued the searchlight must be moved, with the possibility that a second craft may slip by unseen. Fan-shaped searchlights covering a wider area are therefore often substituted for the pencil-shaped searchlights at the entrance of important harbours.

To meet the increased power of the torpedo-boat destroyers, the 6-pounder gun, firing smokeless powder, was superseded by a 12-pounder assisted by a number of larger (4in.) guns. The number of lights was also greatly increased, and the "automatic sight" was introduced. Booms of timber were also generally adopted as a shield behind which ships could lie in safety, protected by the shore guns. They are, usually, placed across the narrowest portion of the channel.

It will easily be seen that the organization of coast defences is now a highly complicated affair. The fortress commander has under him an indefinite number of fire commanders, each in charge of a group of batteries; officers in charge of the lights and of torpedo defences; infantry under their commanding officers; an intelligence section and a telephone service. But in spite of the high development of the system, coast defence, considered as a whole, is deemed of less importance for Great Britain in proportion as the British Navy maintains its superiority. The more confident we are of outnumbering the enemy at sea the less danger is there of an invasion of our shores, for the simple reason that all the enemy's ships must be massed to meet a superior force in an engagement, leaving none or only a negligible number to attack our coasts. There is of course the danger of a raid by torpedo craft or, what is still more formidable, the cooperation of a torpedo raid and a landing-party. The latter would probably be possible only at night, after the destruction of the electric lights of the fortress. The necessity for an adequate force of infantry in a garrison is therefore obvious, as the land operations may assume great importance. Dockyards and coaling stations are always liable to be singled out for a raid by the enemy, even if the defenders' fleet is holding its own on the seas. The suddenness on which any such attack depends for its success makes it necessary for a coast defence fortress to be in a state of the utmost preparedness in time of war against attack either on the land side or from

the sea. Assistance from outside could hardly be obtained in time to be of use. Peace time training has in this case a special value, and the intelligence department and administrative system can hardly be too highly organized.

CHAPTER XVI.

THE NEW ARMY.

THE OLD EXPEDITIONARY FORCE TOO SMALL—THE NEW ARMY—WHY OUR TROOPS HELD THE GERMANS—THE GERMAN SYSTEM OF ATTACK—MECKEL'S VIEW—SIR CHARLES NAPIER AND THE BAYONET—THE MISTAKES OF THE PRUSSIAN GENERAL STAFF—THE BRITISH ARMY AT WATERLOO—IN THE PENINSULA—AT DELHI—THE WRECK OF THE "BIRKENHEAD"—MOLTKE'S OPINION OF THE BRITISH ARMY.

THE foregoing pages give a short description of our military forces such as they were at the outbreak of the War. Starting on the basis that six infantry and one cavalry divisions were to represent the armed strength of Britain, it was at once evident that such a small contingent was quite incapable of sustaining the part required from us as one of the Great Powers of Europe. Steps were at once taken to raise much larger numbers, but any description of these would be out of place in this book. Suffice it to say that if we now require an army of a million men the plain man is justified in asking why no arrangements for their training were made during peace.

That our troops would show themselves worthy of the task—the very heavy task—imposed on them was certain to all who had watched the progress they had made during the last ten years. Long, careful, and accurate training in accordance with the true principles of war gave them a value far beyond their numbers, and thus it was that the few divisions under Sir John French were able to hold back the Germans four times their strength when retreating from Mons. Undoubtedly they were aided by the strength of the defensive under modern conditions of fighting. A force entrenched as our infantry usually was can resist frontal attack from a far larger force. The Germans, too, played into our hands by the absurd formations in which they came on. "Death loves a crowd." To attempt, as they did, to bring on large closed bodies, difficult to manœuvre and relatively incapable of giving effective rifle fire, was to invite defeat. The Germans have for years openly avowed that they meant to do this, because they believed the numbers at their disposal would eventually enable them to overrun their opponents. It is the teaching of Meckel and the "Sommernachts Traum"; it is the system which the Prussian Guards tried at St. Privat and which failed disastrously. It always will fail against troops like the British, who are not to be frightened by threats, who sit tight and shoot with deadly accuracy, and who at the supreme moment display what Sir Charles Napier described as "the stern determination of the British soldier to close with the bayonet."

Long may these two points form the main characteristics of our infantry.

That the Kaiser underestimated the value of the British troops is proved by his well-known order to Kluck and by the subsequent order of the Crown Prince of Bavaria to the men under his command. Those who dared oppose the mighty War Lord were to be "walked over."

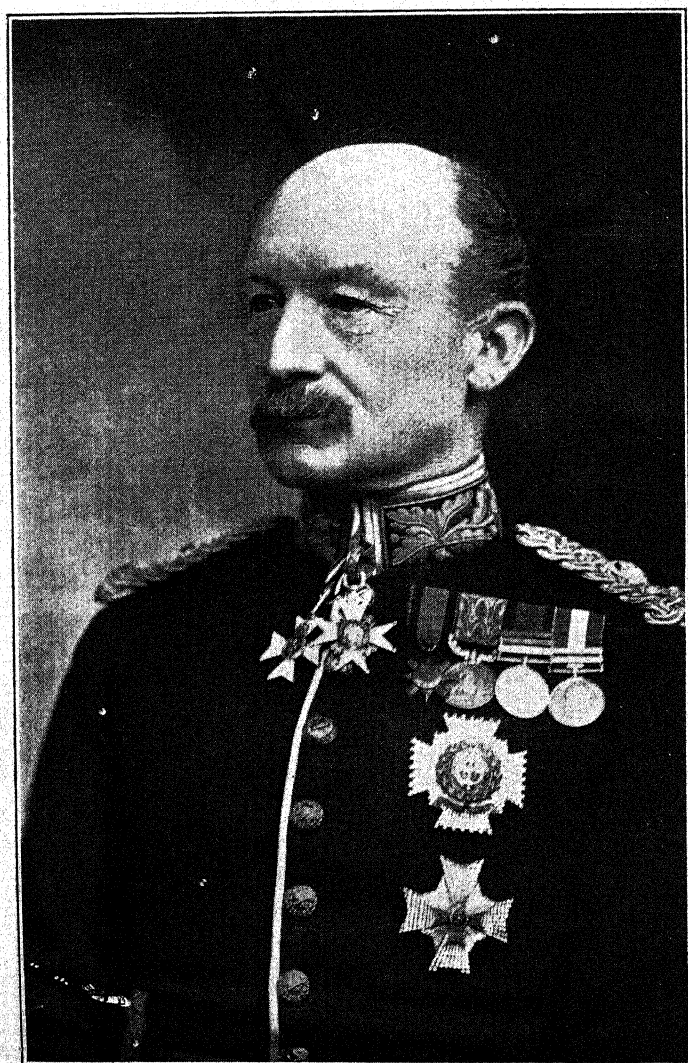
Impartial judgment has never been the leading characteristic of the Prussian General Staff. Before Jena they boasted that, although the French might beat the Austrians, they would find in the Prussian Army an irresistible force, which, nevertheless, went down like corn before the sickle when it met the French on the 14th October, 1806, and was not merely beaten but driven headlong from the double fields of battle, Jena and Auerstadt, to find safety only in flight and eventual surrender at Prentzlow and Lubeck.

The Germans, dominated by the Prussian spirit, entered on the present war with all their old arrogance. "Walk over" the British Army, forsooth! Did the Kaiser not know that the British soldiers were the descendants of those who fought the live-long day at Waterloo till the tardy arrival of the Prussians enabled them to advance and drive back their opponents from the field? That their forbears formed the immortal Light Division which at the storming of Badajoz could not win their way up the deadly breach, yet stood for hours in the ditch, a prey to shot and shell, unable to go forward, but sternly refusing to go back? That their

grandfathers had held for months the ridge at Delhi, a mere handful compared with their foes within the town, and that they finally stormed it with a force which was not a third of the disciplined men who manned its walls? Did he not remember the case of the *Birkenhead* transport, in which British soldiers went to their watery graves standing in the ranks, calmly waiting for death, and that his great-uncle had had an account of this gallantry written in German, and read at the head of every Prussian regiment? The fighting capacity of the British troops was known to the whole world, except, apparently, to the military clique at Berlin.

It may be pointed out that the Kaiser, while professing to consider General—by which he meant Field-Marshal—French's little army as "c[illegible]ble," accumulated an apparently overwhelmi[illegible] for its annihilation, and that, too, despite th[illegible] pronouncement of the great Moltke that he "[illegible]d not think the British infantry would be able [illegible] maintain their traditional supremacy over Con[illegible]ental troops now that all armies were armed wi[illegible] long-range rifles. There would be no longer," that organizer of victory added unprophetically, "the opportunity for them to display their well-known prowess in hand-to-hand fighting."

Whether Moltke would have approved of the tactics adopted by Kluck in his effort to obey the Kaiser's commands is improbable. The opportunity of charging with the bayonet was deliberately given to the British



xvi.] LIEUTENANT-GENERAL [*Elliott & Fry*
SIR ROBERT S. S. BADEN POWELL.

by the German leaders. It cannot be said that they failed to take advantage of it.

War is the time when lessons are taught. We shall have much to learn from our experience. Many old notions will have to be cast aside, our whole military machinery adapted to the new era. The views of the nation as to the need for an army will probably be modified, and it is to be hoped a permanent, better and more general system of training introduced. It cannot be too strongly emphasized that now, as in the old French war, we lost thousands of men and piled up a huge national debt because our rulers had not the courage to tell the people the truth, and from the first raise an army to cope properly with our opponents. In 1796 Napoleon's career might have been cut short; in 1807 it could have been brought to an abrupt termination. But on neither occasion were we ready. Had Wellington had a sufficient army he would have reached Paris in 1812, thereby saving myriads of lives and millions of money to Europe. We failed on each of these occasions rightly to judge the situation. Have we done any better in 1914?

The art of war has not been changed, only modified, by modern conditions; but the old form of the concrete battle between relatively small forces, on which the fate of nations has so often depended, has disappeared. We now find long-drawn-out battle lines of an extent hitherto unthought of, in which the struggle for mastery lasts weeks. The battle has given place to the continuous struggle. We may never again see the short

and sharp decisions of a hundred years ago. But when victory declares itself for one side it is probable that, if no longer so dramatic, it will be equally effective and far more destructive to the beaten side.

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